Columbia University Bulletin

The Faculty of Medicine
College of Physicians & Surgeons
1993–1994

Serial
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Inquiries

POST OFFICE ADDRESS
College of Physicians and Surgeons
Columbia University
630 West 168th Street
New York, NY 10032

TELEPHONE INQUIRIES:
Office of Admissions: (212) 305-3595
Office of Financial Aid: (212) 305-4100

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Contents

Academic Calendar 5

Health Sciences Administration 8

Faculty of Medicine 8

College of Physicians and Surgeons and Affiliated Hospitals 17

Admission, Registration, Expenses, and Financial Aid 26
Application for Admissions, 26. Registration, 27. Other Courses, 28. Fees, 28. Application or Renewal of Application for a Degree, 30. Requests for Transcripts, 30. Estimated Expenses, 30. Housing, 31. Disability-Related Services, 31. Financial Aid, 32. Student and Alumni Activities, 47.

The Program of Instruction 48
Grades, Promotions, and Leaves of Absence, 48. Basic Science and Introductory Clinical Courses, 49. Major Clinical Year, 51. Fourth Year, 53. Special Programs, 53. Endowed Lectureships and Visiting Professorships, 56. Prizes and Awards, 57.

Postgraduate Programs 59

Departments of Instruction 61
Anatomy and Cell Biology, 61. Anesthesiology, 62. Biochemistry and Molecular Biophysics, 66. Dermatology, 68. Genetics and Development, 70. Medicine, 72. Microbiology, 92. Neurological Surgery, 93. Neurology, 95. Obstetrics and Gynecology, 99. Ophthalmology, 103. Orthopedic Surgery, 107. Otolaryngology, 110. Pathology, 113. Pediatrics, 119. Pharmacology, 130. Physiology and Cellular Biophysics, 132. Psychiatry, 133. Public Health, 151. Radiation Oncology, 164. Radiology, 165. Rehabilitation Medicine, 170. Surgery, 174. Urology, 181.

Official Regulations 184

Protection Against Sexual Harassment 189

Academic Calendar, 1993–1994

The following Academic Calendar was correct and complete as of the time of publication; however, the University reserves the right to revise or amend it, in whole or in part, at any time. Information on the current status of the Academic Calendar may be obtained in the Office of Financial and Student Information Services, 141 Black, 212-305-3477.

Major Religious Holidays

For a statement of University policy regarding religious holidays, see *University Regulations*.

Some of the major holidays are listed below. The Jewish and Islamic holy days begin at sundown of the preceding day. The exact dates for the Islamic holy days may vary by one or two days from the estimated dates given below.

1993–1994

Thursday, Friday, September 16, 17	Rosh Hashanah
Saturday, September 25	Yom Kippur
Thursday, Friday, September 30, October 1	First days of Succoth
Thursday, Friday, October 7, 8	Concluding days of Succoth
Thursday, February 10	Lunar New Year
Monday, March 14	Id al Fitr
Sunday, Monday, March 27, 28	First days of Passover
Friday, April 1	Good Friday
Saturday, Sunday, April 2, 3	Concluding days of Passover
Monday, Tuesday, May 16, 17	Shavuoth
Saturday, May 21	Id al Adha

1993

JUNE

8–9 USMLE I—Required for Class of 1995. Passing required for graduation from P&S.

JULY

1 Thursday. Class of 1994 reports to hospital rotations.

5 Monday. Independence Day Holiday observed for fourth-year students.

6 Tuesday. Class of 1995 reports to hospital rotations.

AUGUST

16–20 Monday–Friday. Orientation for first-year students, Class of 1997.

19 Thursday. Registration for first-year students.

23 Monday. Academic year begins for first-year students.

SEPTEMBER

6 Monday, Labor Day. Holiday for third-year students.

7 Tuesday. Academic year begins for second-year students.

21–22 Tuesday and Wednesday. USMLE I examination required for students failing June 8–9 examination.

23–24 Thursday and Friday. USMLE II examination required for fourth-year students. Passing required for graduation from P&S.

OCTOBER

20 Wednesday. Awarding of October degrees.

NOVEMBER

2 Tuesday, Election Day. Half-day holiday for first- and second-year students.

25 Thursday. Thanksgiving holiday for third-year students.

25–26 Thursday, Friday. Thanksgiving holiday for first- and second-year students.

DECEMBER

18 Saturday through Sunday, Jan. 2. Vacation for first-, second-, and third-year students.

1994

JANUARY

3 Monday. Resumption of classes for first-, second-, and third-year students.

17 Monday, Martin Luther King's Birthday (observed). Holiday for first- and second-year students.

FEBRUARY

9 Wednesday. Awarding of February degrees.

21 Monday, Washington's Birthday (observed). Holiday for first- and second-year students.

MARCH

29–30 Tuesday and Wednesday. USMLE II for students failing September 21–22 examination.

26 Saturday through Sunday, April 3. Spring vacation for first- and second-year students.

MAY

4 Wednesday. Dean's Day for Medical Student Research.

18 Wednesday. Columbia University commencement and convocation of the College of Physicians and Surgeons.

20 Friday. Last day of classes for second-year students.

30 Monday, Memorial Day. Holiday for first- and third-year students.

JUNE

7–8 Tuesday and Wednesday. USMLE I required for Class of 1996. Passing required for graduation from P&S.

10 Friday. Last day of classes for first-year students.

17 Friday. Major clinical year concludes for third-year students.

JULY

1 Thursday. Class of 1995 reports to hospital rotations.

4 Monday, Independence Day holiday.

5 Tuesday. Hospital rotations begin for Class of 1996.

Holidays not specified on this calendar are decided by Course Directors in each course in first and second years and by Course Directors in each course in each teaching hospital in third and fourth years.

Dates of U.S. Medical Licensing Examinations 1993–1994

Step I	**June 8–9, 1993**	**Required by P&S**
	September 21–22, 1993	**Not given at P&S**
	June 7–8, 1994	**Required by P&S**
Step II	**September 23–24, 1993**	**Required by P&S**
	March 29–30, 1994	**Not given at P&S**

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ROBERT H. WYLIE, JR. *Professor Emeritus of Clinical Surgery*

The College of Physicians and Surgeons and Affiliated Hospitals

The College of Physicians and Surgeons is guided by the principle that medical education is university education. The acquisition of knowledge and skills is important in professional education, but far more vital is a profound understanding of the science, the art, and the ethic within which both knowledge and skill are applied. As a part of Columbia University, the College builds its curriculum, selects its officers of instruction, and marshals its enormous resources of equipment and clinical experience to develop in the student this understanding of medicine. Within the curriculum for the M.D. degree is the fundamental knowledge upon which later specialization is built, and from which the natural bent is discovered toward general or special practice, or toward research, teaching, or administration. The postgraduate programs of the College provide training in the specialties, help the graduate physician to keep abreast of new knowledge, and support the research from which the physician's knowledge develops.

History of the College and University

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The American Revolution interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine. The first graduates in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May 1769, and that of Doctor of Medicine in May 1770 and May 1771, respectively. Instruction in medicine was given until interrupted by the Revolution and the occupation of New York by the British, which lasted until November 25, 1783. In 1784 instruction was resumed in the academic departments, and in December of the same year the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the college was incorporated as an integral part of the University. Since September 1917, women have been admitted to the College on the same basis as men.

The Columbia-Presbyterian Medical Center was opened in the spring of 1928, seven years after the establishment of a permanent alliance between Columbia University and the Presbyterian Hospital. It consists of the following units: the divisions of the University Faculty of Medicine (the College of Physicians and Surgeons, the School of Nursing, the School of Public Health); the University School of Dental and Oral Surgery; the Presbyterian Hospital and its subdivisions; the New York State Psychiatric Institute; and the Washington Heights Health and Teaching Center.

The Medical Center occupies a plot of land given to Columbia University and the Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. It comprises about 20 acres extending from West 165th Street to West 168th Street and from Broadway to Riverside Drive and is readily accessible from all parts of the city. A map of the Medical Center is on the inside back cover.

The College of Physicians and Surgeons is at 630 West 168th Street between Broadway and Fort Washington Avenue in a 17-story building, each floor of which connects with the wards and services of the Presbyterian Hospital. The William Black Medical Research Building is a 20-story building, containing research laboratories for the faculty members of the College of Physi-

cians and Surgeons. It is connected with the College building and is located at 168th Street and Fort Washington Avenue. The Julius and Armand Hammer Health Sciences Center, a 20-story structure diagonally opposite the William Black Medical Research Building, opened its teaching, research, and library facilities in 1976.

Augustus C. Long Health Sciences Library

The Columbia University Health Services Library is housed in the Julius and Armand Hammer Health Sciences Center, 701 West 168th Street. The four floors occupied by the library offer a comfortable atmosphere conducive to study, including such amenities as individual study carrels, group study and conference rooms, and a leisure reading lounge.

With more than 450,000 volumes and a staff of 50, the Health Sciences Library is one of the largest medical center libraries in the United States. It is well able to serve the needs of faculty, students, and researchers in the health sciences disciplines. More than 4,400 periodicals are received regularly. The library includes a comprehensive media center equipped with audiovisual materials and equipment, a microcomputer laboratory and classroom, and a significant rare book and special collections section. The library offers a wide array of information services, including computerized literature searching, individual consultation on research topics, and instruction on the use of information resources. Materials describing library services are available on request.

Other Columbia libraries, located on the Morningside campus, are open to all students and faculty who carry Columbia identification cards. The main collection is housed in Butler Library; special and departmental collections are housed in other buildings on the campus. Columbia students and faculty also are permitted access to the collections of many other research institutions including Stanford and Yale Universities, under the auspices of the Research Libraries Group. Information about the Research Libraries Group can be obtained from the Health Services Library.

Columbia-Presbyterian Cancer Center

The Cancer Center was established in 1972 and in 1979 was awarded Comprehensive status by the National Cancer Institute in recognition of its broad responsibility for research, patient care, cancer education, and cancer control activities. The Center coordinates, integrates, and facilitates cancer research, education, and patient care in the Health Sciences Faculties of Columbia University and its affiliated hospitals in New York City—Presbyterian, St. Luke's-Roosevelt, Harlem—as well as Overlook in Summit, New Jersey, and Morristown Memorial Hospital in New Jersey. The Cancer Center was organized to effect the efficient and cooperative use of all Center resources, maximize the dissemination of information among Center personnel, stimulate basic cancer research, and facilitate the rapid translation of cancer research findings into programs for improving capabilities for the prevention of cancer and the diagnosis, treatment, and care of patients with cancer.

Institute of Cancer Research

The Institute of Cancer Research of Columbia University College of Physicians and Surgeons was established in 1911 with funds bequeathed to the University by George Crocker. It moved from its original quarters on 116th Street to the campus of the Columbia-Presbyterian Medical Center in 1938.

Center for Geriatrics and Gerontology

The Center was established in 1979 by the Faculty of Medicine and the New York State Office of Mental Health and is a resource for teaching, research, and clinical model development in geriatrics and gerontology in medical and long-term care facilities and in community settings. The components of the Center comprise an independent entity in the Faculty of Medicine, a divi-

sion of the School of Public Health, a department in the New York State Psychiatric Institute, and the Morris W. Stroud III Program on Scientific Approaches to Quality of Life in Health and Aging. Its major focus is cross-national and cross-cultural research relating to the health of the elderly, with an emphasis on the interplay of medical, mental, and social conditions.

Howard Hughes Medical Institute Program in Molecular Neurobiology

The Program is one of several Hughes Medical Institute Programs in the country to be devoted to the neurosciences. Its establishment in 1984 made possible the scientific integration of the College's widely acclaimed research efforts in the neurobiology of ion channels, learning, development, and critical areas of molecular genetics. In addition to five established investigators in these fields, the Center personnel include postdoctoral fellows, staff scientists, and support staff.

Howard Hughes Medical Institute Program in Structural Biology

Begun in 1986, the program is part of a larger effort by the Institute, which houses several of its research laboratories in various medical centers. The program at Columbia focuses on biophysical studies of molecular structure with three major areas of activity: direct research activities in diffraction studies of macromolecular structure and function, core facilities for molecular biophysics, and a synchroton radiation resource at Brookhaven National Laboratory.

Center for the Study of Society and Medicine

The Center for the Study of Society and Medicine, established in 1983, pursues an interdisciplinary research and teaching program that explores medicine in its social, cultural, and political contexts. Its faculty is drawn from history, sociology, law, English and comparative literature, and medicine and brings a humanistic and social science perspective to bear on medical education, clinical practice, biomedical research, and health care delivery. The principal faculty members are appointed through the Department of Medicine and teach a required course for second-year medical students on the social forces shaping contemporary medical practice. They also conduct seminars for house staff, participate in hospital rounds, and lecture at Columbia-affiliated institutions. The Center's programs are focused on medicine's intersection with the humanities, society, human rights, public policy, and ethics as well as on the social context of biomedical research.

Irving Center for Clinical Research

The Irving Center for Clinical Research is a core facility that provides resources to clinical investigators to stimulate multi-disciplinary, intensive investigation of human disease and clinical pharmacology. Although the primary purpose of the facility is to conduct research, the Center also provides opportunities for undergraduate and postgraduate training in clinical investigation.

The most significant portion of the Irving Center is a General Clinical Research Center, funded by the NIH, which has served clinical investigators at the Medical Center for more than 20 years. At its most recent review, the GCRC was ranked in the top dozen centers among more than 75 centers in the United States.

A newly renovated and expanded 30,000-square-foot Center—made possible by the far-sighted philanthropy of Herbert and Florence Irving—gives CPMC a state-of-the-art environment for clinical research. The new facility is arguably the best staffed and most modern and comprehensive clinical trials unit in the United States. It contains a core laboratory for non-routine chemical and biological assays (i.e, those not available in clinical laboratories elsewhere) on clinical specimens from patients; a data management unit with a biometrics computer group to help investigators not only in computer-based data storage, but also in the design and analysis

of clinical research studies; a specially designed clinical research unit for studies of drug dependence; an outpatient center with five examination/interview rooms; a treatment room for clinical procedures necessitated in the course of research, such as bone, nerve, or muscle biopsy; and an 18-bed inpatient suite with private rooms.

The adult inpatient facilities include a nutrition unit for preparation of special research meals and other nutrition activities that support research protocols. Specialized research equipment includes beds wired for cardiac telemetry connected to a central monitoring station in the Milstein Hospital Building; treadmill and tilt table for cardiovascular studies; instruments for geriatric research; bone mineral analyzer for osteoporosis studies; and sleep study room with a connecting observation room.

Gertrude H. Sergievsky Center

The Sergievsky Center faculty focuses on epidemiologic approaches to the study of neurodevelopmental disorders throughout the lifespan. Areas of major concentration include epilepsy and seizure disorders, degenerative diseases of the nervous system, cerebral palsy and related developmental disorders of nervous system in infants and children, and neurologic disorders of major public health impact. The allied disciplines in the health sciences represented in the Center, in addition to epidemiology, include biostatistics, human genetics, neurology of adults and children, obstetrics, pediatrics, physiology, psychiatry of adults and children, psychology, and social sciences. Funded with an endowment, it also participates in the teaching programs of the epidemiology division of the School of Public Health and the Departments of Neurology, Psychiatry, and Pediatrics and provides a major resource in epidemiology research and training in the epidemiology of diseases of the nervous system.

Institute of Human Nutrition

The Institute of Human Nutrition is an interdisciplinary unit whose mission is to study all aspects of nutrition that relate to human health. The Institute serves to conduct, coordinate, and lead nutrition research and education activities throughout Columbia University and its affiliated institutions. A long-standing mission of the Institute is to train individuals for scholarly activities and for positions in universities and research centers that are in the forefront of the movement to advance nutrition as a health science. In addition, the Institute seeks to augment the training of physicians and other health specialists who are interested in emphasizing nutrition in their professions.

To achieve this integration of purpose and at the same time allow for the specialization necessary for the best research and teaching, the Institute functions to coordinate academic nutrition activities being carried out within many units (Faculties, Departments, Centers) within the Columbia University system. Although each unit conducts its own program of research and training, combined research projects among the units are under way and joint seminars and courses involving faculty members and students in all units are conducted regularly.

The Master of Science Program is administered by the Postgraduate Division of the Faculty of Medicine. Ph.D. degrees in nutrition are awarded by the Graduate School of Arts and Sciences of Columbia University. Application to the Ph.D. program should be made to the program at 701 W. 168th Street, Room 406, New York, NY 10032. For further information contact the Institute of Human Nutrition, 701 W. 168th Street, New York, NY 10032.

International Institute for the Study of Human Reproduction

The International Institute for the Study of Human Reproduction was founded in 1965 by Dr. Howard C. Taylor and was made possible by a substantial grant from the Ford Foundation. The primary purpose of the founders was to foster research in the sciences relevant to the solution of the world population problem. In more recent years, the aims of the Institute have been inter-

preted more broadly to include teaching, research, and the provision of clinical and social services related to the reproductive health of men and women. The Institute now consists of three centers.

The Center for Reproductive Sciences (CRS) is a multidisciplinary group of basic and clinical research scientists with a specific interest in the overlapping field of genetics and early development. The overall research emphasis is on obtaining comprehensive information on the reproductive mechanisms which ultimately result in the production of mammalian germ cells. The Center includes Divisions of Genetics of Reproduction, Male Reproductive Endocrinology, Female Reproductive Endocrinology, Primate Neuroendocrinology, Molecular Endocrinology, Gene Expression in Early Development, and Biochemistry of Reproduction, which are closely integrated. Individual and collaborative ongoing research is concerned with 1) a study of TGF-beta; 2) an analysis of mammalian spermatogenesis; 3) a study of hsp26 expression in Drosophila; 4) use of the homeotic selector genes (Ubx) in Drosophila to analyze development; 5) the study of the GnRH pulse generator in primates; 6) a study of the prenatal expression of growth factor genes and receptors; 7) a study of GnRH networks in the rhesus brain by neuroanatomical methods; 8) analysis of placental CRH in pregnant baboons; 9) experiments with steroid/growth factors in neurodevelopment; 10) study of sex steroid regulation of brain POMC and LH; 11) an analysis of proto-oncogene expression during mammalian gametogenesis; 12) genetic recombination in the cold hibernating hamsters; 13) origins of human congenital malformations; and 14) a study of Wnt proteins. Biomedical cores are organized to expedite technical usage of a primate colony, molecular cytology/histology techniques, radioimmunoassay of steroids and proteins, cell and hybridization culture (including transgenic techniques), a molecular biology facility, Electron Microscopy, and a Protein DNA Microchemistry Core. Graduate students, postdoctoral fellows, and medical students receive training in individual laboratories. A weekly seminar series and courses sponsored by associated basic sciences departments provide didactic instruction.

The aims of the Center for Population and Family Health are more specifically relevant to the social consequences of human reproduction. The Center's community-oriented Reproductive Health Services for Women Unit, in cooperation with the division of ambulatory care of the Department of Obstetrics and Gynecology, provides care, with emphasis on services for adolescents, to the community surrounding the Columbia-Presbyterian Medical Center. The Center's International Research and Technical Assistance Unit works with a number of foreign governments and with private organizations toward improved basic health and family planning services for poor people in developing countries. The Social Sciences Research Unit conducts ongoing evaluations of the Center's domestic reproductive service programs and carries out a basic research program on the causes and consequences of adolescent fertility. Finally, as a division of the School of Public Health, the Center provides academic programs leading to the M.P.H. and Dr.P.H. degrees in the fields of population/family planning, maternal and child health, and public health nutrition.

The offices of the Centers for Reproductive Sciences and for Male Reproduction are at 630 West 168th Street, and the office for the Center for Population and Family Health is at 60 Haven Avenue, Floor B-3, New York, N.Y. 10032.

Affiliated Hospitals

The Presbyterian Hospital in the City of New York

Founded in 1868, the Hospital joined with the Columbia College of Physicians and Surgeons to form the Columbia-Presbyterian Medical Center, which opened in 1928. Under the terms of the permanent alliance agreement with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the hospital on nomination by the Trustees of the University. The Presbyterian Hospital has an overall capacity of 1,603 beds and 79 bassinets. A major modernization program completed in 1989 encompassed the expansion of pediatric surgery and imaging in the Babies Hospital Division, the completion of a new 300-bed community hospital—the Allen Pavilion—at the northern tip of Manhattan, and the opening of the 10-story, 745-bed Milstein Hospital Building.

The Hospital includes all of the individual units described below:

The Milstein Hospital Building is the single largest hospital pavilion, with 745 beds. This technologically advanced, adult primary care hospital was opened in 1989.

The New York Orthopaedic Hospital, the Hospital's orthopedic surgery service, opened as a dispensary in 1866 largely because of the interest taken in the care of the crippled by Theodore Roosevelt, father of the president of the same name. The first artificial joints for hips, shoulders, and knees were developed there.

Squier Urological Clinic is the urology service of The Presbyterian Hospital.

Sloane Hospital for Women, the Hospital's obstetrics and gynecology service, is best known for care of women at risk for difficult pregnancies and for treatment of ovarian and breast cancer. It also has an active in vitro fertilization program.

Babies Hospital, founded in 1887, provides for general medical and surgical care of infants and children up to their late teens and care for premature babies. Its neonatal intensive care unit has been designated a center of excellence by the National Institutes of Health for treatment of respiratory disorders in premature babies. It also excels in treating infants and children with heart defects.

Neurological Institute, one of the first nongovernmental hospitals in the country for the treatment of diseases of the nervous system, was founded in 1909. It is known for research in and treatment of Parkinson's disease, movement disorders, aneurysms, epilepsy, brain tumors, and strokes.

The Edward S. Harkness Eye Institute, site of the Hospital's ophthalmology service, was founded in 1933. The Eye Institute is a leading center for research in and treatment of all eye disorders, including cataracts, tumors of the eye, and glaucoma, and has complete facilities for the medical and surgical treatment of adults and children with diseases of the eye. The Eye Institute has been a pioneer in the clinical use of lasers and ultrasound.

Vanderbilt Clinic was presented to Columbia University by the Vanderbilt family in 1888 and became part of Presbyterian Hospital in 1928. It comprises all of the Hospital's outpatient clinics and provides excellent medical and surgical care in every discipline.

Atchley Pavilion contains administrative and doctors' offices, as well as specialized ambulatory care centers.

The Allen Pavilion is a 300-bed community hospital located at 220th Street and Broadway. It was opened in 1988 and offers a wide range of medical and surgical services to residents of northern Manhattan, Riverdale, and other Bronx communities.

Washington Heights/Inwood Ambulatory Care Network (ACNC) is a multi-site network of doctors' offices established in the surrounding community by The Presbyterian Hospital.

Columbia-Presbyterian/Eastside is the Hospital's midtown Manhattan practice site.

The Mary Imogene Bassett Hospital

The Mary Imogene Bassett Hospital in Cooperstown, New York, is a hospital combining the characteristics of a university medical center with a dedication to the delivery of both primary health services to the local community and highly specialized services to a large referral area. The hospital has 180 beds and a staff of salaried, full-time specialists. In 1992, there were 9,474 hospital admissions, including 903 to the O'Connor Hospital Division, a 28-bed Bassett facility located in Delhi, New York. In 1992, there were more than 195,000 outpatient visits to Cooperstown clinics and 146,450 visits to Bassett's 14 regional health center sites. In 1992, the Bassett Clinic, a $30 million outpatient facility, including a comprehensive cancer treatment center, opened in Cooperstown. The teaching program for house staff and students is a highly personalized one based on a team approach to medical care. Members of the staff conduct basic,

clinical, and epidemiological research. The library is unusually extensive for a hospital of this size, with more than 30,000 volumes and 540 subscribed journals. Since 1947, the hospital has had a formal affiliation with Columbia and in 1992, 58 students from Columbia elected programs at Bassett Hospital.

Harlem Hospital Center

Harlem Hospital Center, founded in 1887, is a progressive acute general teaching hospital offering primary, secondary, and tertiary care for children and adults living in the Central Harlem area and environs. The main complex consists of seven buildings. Eleven strategically located satellites extend the hospital out into the community. Operating with 683 certified beds and managing more than half a million annual patient visits, the hospital functions as the primary health care provider for a catchment area of three and a half square miles. Since 1968, the College of Physicians and Surgeons, through a contractual arrangement with the New York City Health and Hospitals Corporation, has been responsible for all professional medical services in this hospital and nominates its professional staff. This affiliation presents a unique opportunity for teaching students, interns, and residents in the traditional disciplines of medicine and provides increasing opportunities for involvement in community medicine.

Helen Hayes Hospital

Helen Hayes Hospital in West Haverstraw, New York, is a 155-bed specialty/rehabilitation hospital offering comprehensive medical, surgical, and therapeutic services to people with physical disabilities or chronic disabling diseases. Founded in 1900, the hospital is operated by the New York State Department of Health and has been formally associated with Columbia University since 1967. In 1988, the association was strengthened with an affiliation agreement between the hospital and CPMC, with CPMC physicians and dentists now providing the hospital's medical and surgical services. The medical specialties and allied health professions are organized into disability units that deliver comprehensive care through an integrated team approach, providing unique educational opportunities for residents and allied health students. The goal of the team is to help patients reach their maximum level of independence. Areas of particular excellence in the hospital's specialty services include neurologic disorders (including MS and epilepsy), orthopedic surgery, and cardiopulmonary rehabilitation. The hospital has more than 1,500 admissions and 16,000 outpatient visits a year. The hospital also supports four on-site research centers: Center for Rehabilitation Technology, Neurology Research Center, Orthopedic Engineering and Research Center, and Regional Bone Center. The Regional Bone Center currently holds a SCOR grant in osteoporosis.

Morristown Memorial Hospital

Morristown Memorial Hospital in Morristown, N.J., is a regional hospital center offering comprehensive health services for the entire family. It is a voluntary, nonprofit institution with a history of community service dating back to 1892. The hospital has become a central health care facility serving Morris, Warren, Sussex, and Somerset counties, and a medical referral center for all of northwest New Jersey. Morristown Memorial is also a teaching hospital, with programs for medical, nursing, and technical staff. It became affiliated with the College of Physicians and Surgeons in 1979. With 639 beds, 3,300 employees (including 900 nurses), a medical and dental staff of more than 650, and a full spectrum of basic and highly specialized services, Morristown Memorial combines the traditional advantages of a community hospital with the advanced capabilities of a progressive medical center. The hospital has two divisions: one where the emphasis is on acute care; the other, a center for rehabilitation medicine, geriatric extended care and chemical dependency services.

Overlook Hospital

Overlook Hospital in Summit, New Jersey, is a 589-bed non-profit suburban community hospital. Founded in 1906, it became a teaching affiliate of the Columbia University College of Physicians and Surgeons in 1975. Overlook trains approximately 100 residents a year. It is a primary and specialized acute care institution accommodating 24,000 inpatient and 293,000 outpatient visits each year. Overlook offers particularly strong training in pediatrics, family practice, radiology, internal medicine, and dentistry. There is also a visiting rotation from Columbia in surgery and a mixed resident rotation from other academic programs in obstetrics and gynecology. With the opening of the hospital's new Medical Arts Center, there will be on-site primary care clinics and subspecialty clinics in each of the major primary care specialties. The hospital also staffs and administers the urban Vauxhall Family Health Center. The hospital's Center for Community Health provides outpatient services including preadmission testing, ambulatory surgery, and radiology and a consumer health library. In 1986, Overlook Hospital and nearby Morristown Memorial Hospital consolidated to form Atlantic Health Systems, which operates the only joint cardiac surgery program in the state. Overlook maintains an open staff policy in regards to the medical staff, which at the present time numbers 700.

St. Francis Hospital

Located in Roslyn, New York, on Long Island, St. Francis Hospital is the state's premier heart center, performing more open heart surgery and cardiac catheterizations for infants, children, and adults than any other facility statewide. St. Francis Hospital is a non-profit, voluntary 247-bed cardiac specialty center founded in 1920 by the Sisters of the Franciscan Missionaries of Mary. Throughout the years it has progressed to incorporate and pioneer many of cardiology's innovations and is among the nation's top six institutions in rendering acute care. By 1948, the hospital had developed into the largest children's hospital in the United States devoted exclusively to the treatment of children with cardiac conditions. During the early 1950s, it received international recognition for pioneering work in open heart surgery and in 1956 opened its doors to adult patients for cardiovascular care. During the 1960s and 1970s, the hospital added a full range of general medical, surgical, and emergency services that support the cardiac program. In the 1970s, St. Francis became the state's only specialty designated Heart Center. The 40-bed Thomas F. Casey Acute Care Pavilion, featuring state-of-the-art coronary and intensive care facilities and technology, opened in 1990 and is the hub of patient and visitor services. In 1992, St. Francis performed 1,879 open heart procedures and 5,881 cardiac catheterizations. St. Francis is the newest affiliate of P&S. The affiliation agreement signed in September 1992 will provide collaborative research efforts and training opportunities for cardiology fellows. In October 1992 St. Francis opened the new DeMatteis Center for Cardiac Research and Education, a 52-acre campus devoted to cardiac risk reduction, screening, fitness, and prevention.

St. Luke's-Roosevelt Hospital Center

St. Luke's-Roosevelt Hospital Center is a 1,315-bed, full-service private hospital serving Manhattan's West Side from West 34th Street to West 142nd Street. The Hospital Center was formed in 1979 with the merger of St. Luke's Hospital Center and The Roosevelt Hospital. It operates as a single hospital with major building complexes and emergency departments at two locations. Both St. Luke's and Roosevelt have been full university hospitals affiliated with the College of Physicians and Surgeons for more than 20 years.

The St. Luke's-Roosevelt Hospital Center medical staff numbers approximately 1,200, and the house staff consists of nearly 500 residents and fellows. Inpatient days during 1992 totaled 387,347, with 38,574 discharges and an occupancy rate of 87 percent; 4,982 babies were delivered. The Hospital Center has 120 clinics and other outpatient programs totaling 377,212 visits annually. Emergency rooms at the two hospitals had 100,749 visits in 1992.

The Hospital Center is recognized as a leader in such fields as cardiology and cardiac surgery, hand surgery, kidney transplantation, pulmonary disease, and performing arts and sports medicine. The Hospital Center's clinically oriented research projects are involved in such areas as

blood diseases, coronary artery disease, peptide therapy for multiple sclerosis, autoimmune disease, aneurysm disease, AIDS, and obesity and nutrition. (It is the site of a federally funded obesity research center.) Research is conducted, in part, through its affiliated Institute for Health Sciences.

St. Luke's Division

The St. Luke's Division, at 1111 Amsterdam Avenue, was established in 1850 and has been located next to the main Columbia campus since 1896. In 1953 St. Luke's merged with Woman's Hospital, which relocated to the St. Luke's campus in 1965. In 1992, the St. Luke's Division opened a new, state-of-the-art 10-story hospital building with 160 medical-surgical beds, an 11-room operating suite, and technologically advanced critical care and cardiac care units. By 1995, renovations to most of the division's older buildings will create interiors equivalent to those in the new building. The St. Luke's Emergency Department, a designated trauma center, is one of the busiest emergency services in New York City.

Roosevelt Division

The Roosevelt Division opened in 1871 at its present site at 428 W. 59th Street. Hospital expansion over the years included the addition of the Arthur J. Antenucci Building in 1973 to accommodate clinical faculty research. In early 1993 a new 13-story, 300-bed acute care hospital building opened with a new lobby entrance on Tenth Avenue. New facilities include a 13-room operating suite, expanded radiology and radiation therapy departments, larger obstetric/gynecology and neonatal intensive care units, consolidated cardiology services, and a new 200-seat conference facility. Following a complete renovation of the adjacent Winston Building, several of the hospital's older buildings will be closed.

New York State Psychiatric Institute

The institute is the oldest psychiatric research institute in the United States. It was built and is maintained by the New York State Office of Mental Health. Through a contractual arrangement, it is affiliated with the College of Physicians and Surgeons. The Institute's functions are to do research into the causes and treatment of psychiatric illness, to provide education for mental health professionals, and to provide the highest quality of clinical care for patients with psychiatric disorders. The Institute currently maintains 29 major research departments, a research hospital, and a wide variety of specialized outpatient departments that provide diagnostic and treatment programs.

Admission, Registration, Expenses, and Financial Aid

Entering classes are enrolled in the College in August of each year. The minimum requirement for admission is attendance for three full academic years at an approved college of arts and sciences. Most applicants present four academic years and a bachelor's degree, although these are not required. The composition of our entering classes indicates, however, that only a relatively small number of three-year students have been accepted in the past by our Committee on Admissions.

The college program must have included English, physics, biology, organic chemistry (including at least one semester of laboratory), and some other course in chemistry covering at least one academic year. Students applying for admission must also have taken the Medical College Admission Test within four years of the date of their application. The latest time the MCAT can be taken is the autumn of the year preceding anticipated enrollment. The student may have concentrated in any area—in the natural sciences, social sciences, humanities, or arts—but evidence of a balanced education, as well as demonstrated interest and ability in the natural sciences, is preferred.

Application Procedure

Application for admission must be filed on a special form obtained from the Admissions Office of the Faculty of Medicine. Applications should be submitted as promptly as possible, though they are accepted only for the next incoming class. Application forms are available beginning in June of the year preceding admission, and they must be filed by October 15. The completed form must be accompanied by the application fee of $60. The fee helps to cover the cost of processing the application; it is therefore not returnable and is not credited toward tuition.

Applicants will be notified when their applications have been received. The Committee on Admissions, however, evaluates only completed applications, that is, those for which letters of recommendation have been received, along with MCAT scores and transcripts. Applicants will be notified, also, when their applications have been completed; if such notification is not received within sixty days after the date of the preliminary processing of an application, applicants should make inquiries at the Admissions Office to learn which items have not yet been received. Failure to receive letters of recommendation and transcripts is the most common cause of delay in the completion of applications.

If a personal interview is required in connection with the application, it will be requested only by the Admissions Office.

Selection of Students

The Committee on Admissions devotes months to the task of selecting a class of 148 from a very large number of applicants. Obviously there will be many well-qualified students whom the College will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation as well. Admission will not be offered to any applicant who has not been interviewed by one of the College's representatives. Impressions from such an interview, as well as scores on the MCAT and academic records, will be considered in selecting individuals for admission. Other selection criteria are listed below.

The Committee places great importance on the fact that the students have learned to think for themselves, to explore, to work hard under their own initiative, to consider alternatives and make decisions, and to develop a desire for a continuous program of self-education. In the selection of students, preference is given to those who, in the opinion of the Committee on Admissions, have shown high achievement in their college education, a mature sense of values, sound motivation, qualities of leadership, and ability to assume responsibility, and to those who have

already given evidence that they are qualified to complete all requirements of our curriculum and to graduate as ethical, compassionate, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole person, the doctor must be a whole person. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education, of which science is a part.

Admission to Advanced Standing

Application for advanced standing is possible for students wishing to transfer into the second- or third-year classes. Transfer into the fourth year is not possible. Students from foreign schools wishing to transfer must apply to the second-, not the third-year class. The only applicants who can be considered for transfer into either the second- or the third-year classes are those who are currently enrolled in an accredited medical school, or else have been so enrolled within one year preceding the time they make application. The number of places available for transfer into both the second- and third-year classes is extremely limited, usually between two and four places for each class; in some years there have been no places available. The deadline for receipt of applications for both classes is April 15.

Admission of Foreign Students

Applicants need not be citizens of this country but preferably should have received their premedical education at an accredited college or university in the United States or Canada. Applications may be submitted by individuals who have been educated elsewhere, but in the past the Committee on Admissions has had great difficulty in finding a satisfactory means of evaluating the caliber of education available in the many colleges and universities throughout the world. Likewise, the Committee will accept applications for admission with advanced standing to this school from individuals who have begun their medical education in schools outside the United States and Canada, but it has been able to admit very few individuals, either to an entering class or with advanced standing, whose previous education has not been obtained in this country or Canada.

Registration

Before attending classes, each student must register with the Student Financial and Information Services office during the registration period listed in the Academic Calendar. Incoming students are notified of the date, time, and place through information provided in the admissions packet. Thereafter, this information is sent to students by the Student Financial and Information office. This office, located in room 141 of the Black Building, provides registrar and bursar services. Daily hours are 9:00 a.m. to 4:30 p.m. Mondays, Wednesdays, Thursdays, Fridays; 9:00 a.m. to 6 p.m. Tuesdays.

All students are asked to give Social Security numbers when registering in the University. Students who do not have Social Security numbers should obtain them from their local Social Security office well in advance of registration. Foreign students should consult the International Student Office, 525 Riverside Drive, Suite 200 (mailing address: International Student Office, Columbia University, Box 525 Central Mail Room, New York, NY 10027); for further information.

Students who are not citizens of the United States and who need authorization for special billing of tuition and/or fees to foreign institutions, agencies, or sponsors should go to the Foreign Student Adviser with two copies of the sponsorship letter. Special billing authorization is required of students whose bills are to be sent to a third party for payment.

Columbia University policy mandates that all students in the Health Sciences must prove immunity to measles (rubeola), mumps, and rubella (MMR) in order to register for classes. The

only acceptable proof is a copy of the laboratory results of titers (blood tests) that clearly document immunity to these diseases. Proof must be sent to Columbia University Student Health Service-MMR, 60 Haven Avenue, New York, NY 10032.

Other Courses

Degree candidates in good standing who are enrolled for a full-time program in the current term may register for one or two courses (except during the summer term) in any division of the University without charge by filing a formal change of program application approved by the Associate Dean for Student Affairs. These forms are then filed in the Office of Student Information Services (Black Building, Room 141). Consult the Office of Student Information Services for autumn and spring change-of-program dates.

Fees

The following fees, prescribed by statute, are in effect for 1992-1993 and are subject to change at the discretion of the Trustees.

University charges such as tuition and fees and residence halls and board plans are due and payable in full by the date announced before the beginning of each term. The full amount of any charge may be paid when due without penalty, or payment may be made in installments. If partial payments are made, a **FINANCE CHARGE** is assessed on amounts not paid by the due date on the initial bill received prior to registration and thereafter as indicated on subsequent monthly bills. In either event, however, the student is required to sign a Retail Installment Credit Agreement at the time of registration, which sets forth the terms and conditions of payment. All charges must be paid by the end of the term.

It is the policy of the University to withhold diplomas, certificates, and transcripts until all financial obligations have been met. Candidates for graduation are urged to pay their bills in full at least one month prior to graduation.

In the event a diploma, certificate, or transcript is withheld because of an unpaid bill, a student will be **required** to use a certified check, money order, or cash to release any of the aforementioned documents.

Tuition and Fees

Projected tuition for the full course in medicine for one academic year (or the equivalent), payable in two installments	$21,305
Disability insurance	$50
Microscope rental	$200

Health Service and Hospital Insurance Fees

The following fees, prescribed by statute, are subject to change at the discretion of the Trustees. For all full-time students, per year (September 1—August 31)

Health service	$610
Hospital insurance premium	594

The student health service fee contributes to the cost of operating the Student Health Service. The hospital insurance fee pays the annual premium to the Associated Hospital Service of New York. Participation in these programs is compulsory for all full-time students; students who already carry hospital insurance, however, will be charged the health service fee only. Proof of comparable coverage must be shown at the time of registration. Upon payment of additional fees, students can acquire hospital insurance coverage for their dependents, and the latter are eligible to receive the benefits of the health service program. Students should consult the Student Health Service for further information on dependent coverage.

The Student Health Service, which holds daily office hours, is on the street level of Bard Haven Tower 1 (60 Haven Avenue).

Application Fees

For admission	$60
For late application, or late renewal of application, for a degree	60

Late Registration Fees

	Full-Time
During late registration	$ 50
After late registration	100

Withdrawal and Adjustment of Fees

With the passage of the Higher Education Amendments of 1992 (Public Law 102-325), the University is required to implement a pro rata refund policy for students who do not register or who withdraw or otherwise fail to complete an enrollment period. Refunds are a percentage of charges (including tuition, dining, and housing) assessed the student based on the date of the student's last day of attendance (separation) as reported by the dean of the student's school.

All students will be charged a withdrawal fee of $75.

A refund calculation will be based on the last day of attendance; however, a student may be charged for services (e.g. housing, dining) utilized after the last day of attendance. These charges should not be paid with Title IV funds.

Certain fees are not refundable: Fees for services used prior to withdrawal, for materials and equipment purchased, for services that continue to be available after withdrawal, and fees paid to outside entities generally will not be refunded. Fees not subject to refund: health service, medical insurance/Blue Cross, catastrophic insurance, course-related fees (labs, etc.), dental kit, microscope, case books, disability insurance, malpractice insurance, materials fee, orientation fee, international services charge, late registration fee, late payment fee, finance charges, computer fee, withdrawal fee.

Students will not be entitled to any portion of a refund until all Title IV programs are credited and all outstanding charges have been paid.

Refunds will be credited in the following order: Federal Stafford Loans, Federal Unsubsidized Stafford Loans, Federal Supplemental Loan to Students (SLS), Federal Perkins Loan, other Title IV programs, non-Title IV funds, and, finally, any remaining credit balance to the student.

The refund percentage is as follows (prorated for calendars of different durations):

1st week	100% refund
2nd week	90%
3rd week	80%
4th week	80%
5th week	70%
6th week	60%
7th week	60%
8th week	50%
9th week	40%
After 9th week	—

Application or Renewal of Application for Degree

Degrees are awarded three times a year—in October, February, and May. A candidate for any Columbia degree (except the Ph.D. degree) must file an application with the Office of Student Information Services, 630 West 168th Street. The last day to file for an October degree is August 1; for a February degree, December 1; and for a May degree, February 1. (When the application date occurs on a Saturday or Sunday, the deadline becomes the next business day.) Fourth-year students usually apply during their last registration.

If the student fails to earn the degree by the conferral date for which he or she has made application, the student may renew the application for the following conferred date.

Requests for Transcripts

The Family Educational Rights and Privacy Act of 1974 as amended prohibits the release of educational records by institutions without the specific written consent of the student or alumnus. Students or alumni may request copies of their records by writing to the Office of Student Financial Information Services, Columbia University, 141 Black Building, 630 West 168th Street, New York, N.Y. 10032.

There is a charge of $5 for each transcript requested singly, or $5 for the first copy and $1 for each additional copy requested at the same time. There is no charge for intrauniversity copies sent between University offices. Transcript requests are processed in the order received and require five to seven working days for processing. Specific deadlines should be mentioned, and checks accompanying requests should be made payable to Columbia University.

Estimated Expenses

Projected educational expenses for a student attending the College during the *first academic year* are as follows:

Tuition	$21,305
Health and Hospitalization	1,264
Disability insurance	50
Microscope rental	200
Uniforms	90
Equipment	430
Books and supplies	760

In addition to the educational costs listed above, each first-year student should budget approximately $9,876 to cover housing ($4,650), food ($3,474), clothing, laundry and dry cleaning ($547), and miscellaneous expenses ($1,205).

There are differences in the length of each academic year, and living and miscellaneous expenses vary. Each year the College Committee on Financial Aid prepares a statement of estimated expenses for students in each year of the medical school curriculum. These statements are given to all financial aid applicants at the time of distribution of the financial aid policy statement.

Microscope, Instruments, and Books

Students are required to have microscopes for courses in the first and second years of medical school. Microscope rental is provided by the college; the $200 annual fee is billed directly to student accounts.

Students are required to purchase dissection equipment for the first-year course in gross anatomy and instruments for the diagnostic examination of patients.

The books required or recommended for courses of instruction are announced at the beginning of each academic year.

Housing

There are three types of housing available to incoming P&S students: *(a) University Residence Halls*—traditional "dormitory rooms" for single students, *(b) University Real Estate Management Properties*—apartment accommodations owned and operated by the University for married students, and *(c) Off-Campus Housing*—rooms and apartments owned and operated by landlords other than the University and not subject to inspection or approval by the University.

University Residence Halls

All newly accepted single medical students who apply for housing are guaranteed an accommodation in UNIVERSITY RESIDENCE HALLS—Bard Hall. Bard Hall, located at 50 Haven Avenue overlooking Riverside Park and the Hudson River, is an 11-story facility which includes both a residence hall and student commons. The residence hall facility houses 305 students in single rooms. Each room is approximately 10′ x 13′. Many of the rooms are equipped with a sink. There is community shower and bathroom on each floor. The student commons includes a lounge, dining room, laundry, and athletic area. The newly renovated Bard Athletic Club encompasses a 20-yard swimming pool, three squash courts, an exercise room, Nautilus and Universal equipment, stationary bicycles, rowing machines, lockers, showers, and saunas. The facility is handicapped accessible. Membership for students is free; users must have their I.D. cards validated with an athletic club sticker, obtainable from the Bard Operations desk or the Health Sciences Housing Office.

University Real Estate Management Apartments

All newly accepted married medical students who apply for housing are guaranteed a University Real Estate Management Apartment in Bard-Haven Towers. The Bard-Haven Towers complex includes three 31-story, high-rise apartment towers. Each tower provides one, two, and three bedroom apartment accommodations. One bedroom apartments (line A&F) in Tower I have been reserved for married students. All apartments are unfurnished and include a full kitchen and bath. Gas, electricity, and telephone service are not included. Each building has laundry facilities, elevator service, and doorman service.

Off-Campus Housing

Students who seek Off-Campus Housing may utilize the Off-Campus Housing Inventory maintained in the P&S Building, 2nd floor, Room 460.

Towers Waitlist

Single students who have received University Residence Halls housing in Bard Hall for their first year of medical school may apply for a University Real Estate Management Apartment in Bard-Haven Towers for their second or third year. There is a wait list for this type of housing. Applications for the Towers' Wait List are distributed by the Health Sciences Housing Office in late September.

All housing inquiries should be directed to: The Health Sciences Housing Office, Bard Hall, 50 Haven Avenue, New York, N.Y. 10032.

Disability-Related Services

Students with permanent or temporary disabilities who wish to request special arrangements are urged to notify the School's liaison officer for disability-related services as early as possible: Dr. Linda Lewis, P&S 3–401; (212) 305-3806. Services to students with permanent and temp-

orary disabilities are coordinated through the Office of Student Affairs. Students are encouraged to call or stop by the Office to discuss any academic accommodations they may need or other related concerns they may have. The Office is located in 305 Low Library. Phone: 854-2388, TDD: 854-6794.

Financial Aid

All financial aid awards are based on demonstrated need. Each applicant for financial aid is required to borrow a sum of money (unit loan) before becoming eligible for scholarships administered by the College. Financial aid awards are intended to supplement, rather than substitute for, the student's resources and parental contributions.

P&S participates in three scholarship programs that are usually awarded to students after the academic year has begun. Based on congressional appropriation, the Department of Health and Human Services (HHS) makes awards to participating medical schools for the EFN, FADHPS, and SDS programs.

The Scholarship for Students of Exceptional Financial Need (EFN) is targeted for students of exceptional need, i.e., those who have zero or close to zero in financial resources and are preferably from a group that has traditionally been underrepresented in medicine. Since the program's inception, P&S has received from one to four awards annually. These funds will replace part of the unit loan, thus providing a one-time full scholarship for one or more students. In 1991–92 the EFN award helped three students.

The other two HHS funds are the Financial Assistance for Disadvantaged Health Professions Students (FADHPS) scholarship and the Scholarship for Disadvantaged Students (SDS). To be considered, a student must come from an environment that inhibits individuals from obtaining the knowledge, skills, and abilities required to enroll in and graduate from a medical school, or the student must come from a family with an annual income below low-income thresholds, which are set according to family size by the U.S. Bureau of the Census. In addition, a student's resources (family contribution) must be $5,000 or less. The amount of FADHPS and SDS awarded to each eligible student will be determined by the Financial Aid Officer and will be contingent upon the number of eligible students, their degrees of financial need, and the amount of funds awarded to P&S. The funds will also be used to reduce part of the unit loan.

The Health Professions Education Extension Amendments of 1992 added new requirements for EFN and FADHPS recipients. They must enter and complete a residency training program in a primary health care specialty not later than four years after completing the undergraduate medical education program and practice in the primary health care specialty for five years after completing the residency program. Students who fail to maintain an acceptable level of academic standing and graduates who fail to comply with the primary care requirements will be liable to the federal government for the amount of the EFN and/or FADHPS award and for interest on such amount at the maximum legal prevailing rate. Students should carefully consider the commitment required and the penalty for non-compliance. Any concerns should be discussed with a financial aid officer and/or Dr. Linda D. Lewis before accepting an offer for these scholarships.

P&S also has approximately seven full-tuition scholarships. The recipients are selected primarily on the basis of need from the second-, third- and fourth-year classes during the Fall semester. Some of these scholarships were established by the Rhodebeck and Wolf families. A student may have this scholarship renewed if his or her need remains the same in subsequent years.

All students will automatically be considered for these special scholarships by completing a GAPSFAS form and by providing all required financial information.

Upon acceptance by the College, students receive the financial aid handbook, loan interest and repayment information, and an application form which must be completed promptly. Students enrolled in the College are informed annually about the policies for the coming academic year and the dates for submission of the financial aid application and loan applications. Further information may be obtained from the Health Sciences Office of Student Financial Planning, telephone (212) 305-4100.

Spouses of medical students should consult the personnel offices of the College of Physicians and Surgeons and of the Presbyterian Hospital for information regarding employment opportunities at the Medical Center.

Scholarships

Students are urged to determine the availability of scholarship assistance from the states in which they reside and to make application for such funds when appropriate. As an example, New York State provides funds through the Tuition Assistance Program to residents who meet financial qualifications. In addition, New York State offers the New York Regents Health Care Opportunity Scholarships for Medicine and Dentistry. Awards are up to $10,000 per year. Applicants must be legal residents of New York State for one year prior to applying and be enrolled in a medical school or be candidates for admission to a medical school. Applicants must agree to practice medicine in an area of New York State designated as a shortage area. Awards will be made to eligible candidates in the following order of priority: (1) Candidate is economically disadvantaged and a minority group member historically under-represented in the profession, (2) Candidate is a minority group member under-represented in the profession, and (3) Candidate completed undergraduate work through assistance from the HEOP, EOP, SEEK, or College Discovery opportunity programs. Applications and instructions may be obtained from:

State and Federal Scholarship and Fellowship Unit
Cultural Education Center, Room 5C64
State Education Department
Albany, New York 11230
(518) 474-6394

Applicants to medical school should also consult college premedical offices for information on the competitive New York State Regents Health Care Scholarships for Professional Study of Medicine. Applications are usually due between the January and March prior to matriculation. Students should be advised that these deadlines are strictly adhered to.

Among nongovernmental sources of funding is the National Medical Fellowships, Inc., which awards fellowships to needy black Americans, American Indians, Mexican-Americans, and mainland Puerto Ricans. Applicants must be citizens of the United States. Awards are given to first- and second-year medical students. Enrolled medical students should apply to NMF at 254 West 31st Street, New York, N.Y. 10001 before March 1 for financial assistance for the second year of medical school. Applicants to medical school should request information from NMF.

There are a number of scholarship funds administered by the College. With the exception of the Lawrence John Durante Scholarship (see below), students do not apply directly for these scholarships. The named scholarships listed below have been donated by alumni, foundations, corporations, and friends of the University and are awarded to qualified students by the Office of Student Financial Planning. Students are assured consideration for these funds by applying regularly for financial aid.

International Students Who Do Not Hold a Permanent Resident Visa

A significant portion of the financial aid packages comes from federally or state-sponsored programs, which require that the recipient/borrower be either a U.S. citizen or a permanent resident. A student in the United States with an F1 or F2 student visa or with a J1 or J2 exchange visitor visa cannot receive student aid from federally or state-sponsored sources but may qualify for and receive need-based school loans, "alternative loans" from outside sources, and grants from funds that are not federally or state-sponsored. All loans for international students require a co-maker who is a U.S. citizen or permanent resident.

Despite eligibility for school funds, close to half of the cost of four years of medical school must be borne by the student in these categories and by his or her family or external sources such as government, foundation, or private support. Therefore, to assure the College of the student's ability to pay, the student must, no later than two weeks prior to the first day of class each year, present proof to the Office of Student Financial Planning that the full cost for that year (as determined by the Financial Aid Officer) has been deposited in an account in the student's name at a bank in New York City. Adjustments to this amount will be made only if, after having completed the financial aid application materials in a timely manner, an "alternative loan" has been approved by the lender or a CU loan and/or a P&S grant is awarded. In that case, the amount of the required deposit for the year may be reduced by the amount of aid awarded.

Tax Withholding for Nonresident Alien Scholarship and Fellowship Recipients

United States tax law requires the University to withhold tax at the rate of 14 percent on scholarship and fellowship grants paid to nonresident aliens that exceed the cost of tuition, books, fees, and related classroom expenses.

Certain countries have entered into tax treaties with the United States that may serve to reduce this rate of withholding. However, even when such a treaty applies, the student and the University must report the full amount of such excess to the Internal Revenue Service. If a student claims tax treaty benefits, he or she must also report this amount to his or her country of residence.

The International Student Office (525 Riverside Drive, Suite 200; mailing address: International Student Office, Columbia University, Box 525 Central Mail Room, New York, NY 10027; telephone 212-854-3591) has prepared a packet of tax information that is available to students and is revised annually. The tax law is complex and may vary with regard to individual circumstances. Therefore, as the University is not in a position to offer individual tax advice, each student may also wish to consult the consulate of his or her country of residence or a qualified tax professional.

Endowed Scholarship Funds

ALLEN Gift of Mrs. Vivian B. Allen.

ANONYMOUS Several; awarded annually.

BANBURY From the Banbury Scholarship Fund.

ALICE IDA BERNHEIM '31 AND ABRAHAM PENNER '31 SCHOLARSHIP FUND For tuition.

ISAAC J. AND RENA HENLY BERNHEIM Given by the family in honor of Isaac J. and Rena Henly Bernheim.

ELSIE J. BIRTWHISTLE Founded by the will of Morell Birtwhistle, in memory of his wife.

E.M. BLUESTONE '19 SCHOLARSHIP FUND

GEORGE BLUMENTHAL, JR. From the George Blumenthal, Jr., Fund.

ALICE BOHMFALK CHARITABLE TRUST FUND FOR SCHOLARSHIPS Established by John Bohmfalk in memory of Charles Bohmfalk, P&S 1883.

JOHN FREDERICK BOHMFALK SCHOLARSHIP Merit scholarships established as a bequest by the late John Federick Bohmfalk.

ELIZABETH ROCK BRACKETT '29 SCHOLARSHIP FUND Bequest of Dr. Brackett, the income to be used for scholarship assistance for women medical students studying under the Faculty of Medicine.

MARTHA HAMILTON BRENNER SCHOLARSHIP FUND Established by E.C. Brenner '08.

HARRY BRITENSTOOL '01 SCHOLARSHIP FUND

GLADYS BROOKS SCHOLARSHIP FUND

DANIEL NOYES BROWN SCHOLARSHIP FUND Established in memory of Daniel Noyes Brown, P&S '32 for graduating seniors going into primary care medicine.

LUCIEN AND ETHEL BROWNSTONE MERIT MEDICAL SCHOLARSHIP FUND A merit scholarship awarded every four years.

DR. MOSES R. BUCHMAN MEMORIAL Open to undergraduate medical students, with preference given to those who are residents of Westchester and who plan to practice pediatrics. Established by friends of Dr. Buchman.

DAVID C. BULL MEMORIAL In memory of Dr. David C. Bull, a former member of the Department of Surgery.

DR. H. GRIFFIN BULLWINKEL '20 AND MRS. LOLA LENHART BULLWINKEL FUND Given by Mrs. Bullwinkel in memory of her husband, Columbia College Class of 1917, P&S Class of 1920.

RICHARD BUTLER Open to men born in the state of Ohio who are qualified for admission to, and plan to enter, Columbia College, the Graduate School of Arts and Sciences, the School of Law, the School of Engineering and Applied Science, or the College of Physicians and Surgeons.

MILDRED O. CADIGAN FUND

LISLE C. CARTER SCHOLARSHIP FUND Established through the generosity of the Emilie H. Siebert Trust, for disadvantaged minority students.

LIAN CHANG

CHEEK (DR. JOANNE LLOYD-JONES) SCHOLARSHIP FUND Gift of Mrs. Arthur Rudd. Established in 1987.

ALONZO CLARK 1835 Founded by the will of Alonzo Clark, M.D., LL.D., for many years president of the College of Physicians and Surgeons.

CLASS OF 1890 Given by a member of the class.

CLASS OF 1899 Given by the class in commemoration of the 35th anniversary of its graduation.

CLASS OF 1912 Given by the class on the 15th anniversary of its graduation.

CLASS OF 1913 For medical student scholarships.

CLASS OF 1920 Given by the class on the 25th anniversary of its graduation.

CLASS OF 1924 To commemorate the 50th anniversary of its graduation.

CLASS OF 1928 Given at its tenth reunion.

CLASS OF 1932 For a scholarship room. Given by the class on the 25th anniversary of its graduation.

CLASS OF 1933 For a scholarship.

CLASS OF 1934 Awarded for medical student scholarships.

CLASS OF 1936 Given by the class on the 25th anniversary of its graduation.

CLASS OF 1937 Awarded for tuition of medical students.

CLASS OF 1938 Awarded annually to assist a student in the College of Physicians and Surgeons.

CLASS OF 1939 Awarded for medical student scholarships.

CLASS OF 1940 Awarded for medical student scholarships.

CLASS OF 1942 Awarded for medical student scholarships.

CLASS OF 1952 Given by members of the class on the 10th anniversary of its graduation.

CLASS OF 1953 Given by members of the class.

CLASS OF 1954 Given by members of the class.

CLASS OF 1958 Given by members of the class.

CLASS OF 1959 Given by members of the class.

CLASS OF 1964 Established in memory of Dr. Howard Gerstel.

CLASS OF 1965 Given by members of the class.

HENRY D. CRUGER Request of Helen Cruger, in memory of the Henry D. Cruger family.

CHARLES A. DANA FOUNDATION, Inc. Established by the Foundation.

ANTHONY M. DeANGELIS '34 SCHOLARSHIP FUND Open to a student of the fourth-year class. Given by Dr. Anthony M. DeAngelis.

HORACE DENNETT Open to students in the third- and fourth-year classes.

DR. HERBERT JACKSON DESHON '30 SCHOLARSHIP FUND Established by bequest of Dr. DeShon, P&S '30.

DAVID M. DEVENDORF 1861 Preference is given to a candidate from Herkimer County, New York, preferably one from the town of Herkimer. Given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861.

MORRIS DINNERSTEIN '18 SCHOLARSHIP FUND

FRANCIS E. DOUGHTY 1869 Given by Miss Phoebe Caroline Swords, in memory of Dr. Francis E. Doughty, Class of 1869.

LAWRENCE JOHN DURANTE '61 Given by members of the Class of 1961, in memory of Lawrence John Durante. Awarded annually to a senior student with verified financial need by the Durante Scholarship Fund Committee after review of the applications of qualified students.

EDWARD PERCY EGLEE '13 Bequest of Edward Percy Eglee, Class of 1913, member of the Faculty of the College of Physicians and Surgeons from 1919 until his retirement in 1953, when he was a clinical professor of medicine.

JOSEPH HERMAN AND HANNAH EICHNER Established by the will of Benjamin Bernard Eichner, Class of 1919.

JOSEPH C. FOSTER Given by Mrs. Esther J. Foster, in memory of her husband.

VIRGINIA KNEELAND FRANTZ '22 Bequest of Dr. Frantz.

NELLIE ALDEN FRANZ Bequest of Nellie A. Franz to Columbia University for scholarships to worthy young women for undergraduate or graduate study, with preference for those interested in medicine, nursing, sociology, and journalism.

JOSEPH H. FRIES '29 MEMORIAL SCHOLARSHIP

DAVID GABERMAN '20 SCHOLARSHIP FUND

ARTHUR AND CORNELIA GANS SCHOLARSHIP FUND Bequest of Cornelia Gans to the College of Physicians and Surgeons to provide scholarships for needy and worthy students of American or Dutch nationality.

GEORGE AND CHARLIE Given by the Alumni Association of the College, in memory of George Peters and Charles Costello, long-time employees of the Medical Center.

NORMAN GOETZ '06 SCHOLARSHIP FUND

ROBERT I. GRAUSMAN '21 SCHOLARSHIP FUND Established by Grausman, P&S '21, and continued in his memory by family and friends.

R. G. HADDAD FOUNDATION SCHOLARSHIP For medical students who are U.S. citizens of Syrian or Lebanese descent.

JACOB HARSEN P&S 1825 SCHOLARSHIP FUND Given by Dr. Jacob Harsen.

FRANK HARTLEY 1880 SCHOLARSHIP FUND Given by friends and colleagues of Dr. Frank Hartley, class of 1880.

HELEN HAYES Established by the College of Physicians and Surgeons to honor Miss Hayes for her four decades of service and devotion to the Helen Hayes Hospital, a New York State-owned Columbia affiliate.

HAROLD HELM Established by the College to honor Mr. Helm, for his statesmenship and leadership as a chairman of the Medi/Center I campaign and for all his efforts on behalf of the University.

WILLIAM H. HEMINGWAY

JEAN HENDERSON '21 MEMORIAL SCHOLARSHIP FUND

MARGARET & E. FREEMAN HERSEY '48 SCHOLARSHIP FUND

AARON HIMMELSTEIN MEMORIAL Open to undergraduate medical students. Given by Dr. Himmelstein's friends and colleagues.

IRMA T. HIRSCHL SCHOLARSHIPS From the estate of Irma T. Hirschl. Awarded on the criteria of financial need, outstanding scholarship and dedication to medical science, the easing of pain and protection of life.

MADAME LEIN-SUN HO SCHOLARSHIP FUND Established by Dr. Karen K. Fu, P&S '67, in memory of her mother.

THE MILDRED HOFFBERG SCHOLARSHIP FUND Established in honor of Charles Flood '28 and his wife.

CHARLES EUGENE HUBER, SR. 1896 SCHOLARSHIP FUND Bequest of Francis D. Huber, Class of 1928, in memory of his father.

FRANCIS HUBER '28 SCHOLARSHIP Open to a graduate of any institution other than Columbia University, City College, Barnard College, or Hunter College. Given by Dr. Francis Huber, Class of 1928.

VIOLA B. HUBER Open to a graduate of Hunter College. Given by Dr. Francis Huber.

ABRAHAM JACOBI For graduates of Columbia University and City College. Given by Dr. Francis Huber, in memory of Dr. Abraham Jacobi.

JACOBY PRESIDENTIAL SCHOLARSHIP

JAMES JAMESON '05 SCHOLARSHIP FUND

EDWARD R. JEAL Awarded to deserving students under the Faculty of Medicine.

D. REES JENSEN '25 SCHOLARSHIP FUND

CHARLES CHRISTIAN LIEB '06 Awarded to a student interested in the study of pharmacology. Given in memory of Dr. Charles Christian Lieb, Hosack Professor of Pharmacology.

LI MING Awarded with preference to students of Chinese birth or descent or nationality. Established by bequest of Mr. Li Ming.

MALCOLM X SCHOLARSHIP FUND Established by the College of Physicians and Surgeons to help further the education of black students interested in medical and public health problems prevalent in black communities.

MALLORY P&S SCHOLARSHIP FUND Established by Mrs. Louis Mallory in honor of Richard Stock '47.

HERBERT D. MANLEY '07 Given as bequest by the late Dr. Herbert D. Manley.

FRANCIS HARTMAN MARKOE P&S 1883 SCHOLARSHIP Given by Madeline Shelton Markoe, in memory of her husband.

MARJORIE McANENY Open to a graduate of Barnard College. Given by Dr. Francis Huber, Class of 1928.

ELIZABETH HALL McCULLOGH '33 Given by Mrs. William G. Heaphy, in memory of her sister, Dr. Elizabeth McCullogh, an alumna of the College of Physicians and Surgeons, Class of 1933.

ARTHUR B. McGRAW '19 SCHOLARSHIP FUND IN CPMC FUND INC.

MABEL C. MEAD Awarded to women students of Chinese ancestry. Preference given to those desiring to study medicine.

MICHELSEN SCHOLARSHIP FUND Established by Jost Michelsen '63.

VIVIAN AND SEYMOUR MILSTEIN ENDOWMENT FOR SCHOLARSHIPS Established by the donors in honor of their friends and physicians, Drs. David Habif '39 and Duane Todd '52.

SAMUEL J. MORITZ MEMORIAL Given by the executors of the estate of Samuel J. Moritz.

GULLI LINDH MULLER '21 Bequest of the donor to be awarded with preference to a gifted woman student.

P&S SCHOLARSHIP AID AND LOAN FUND Established by the wives of the members of the Faculty of Medicine, faculty, and friends of the College.

RUDOLPH AND MARY E. PFEIFFER Given by Mrs. Mary E. Pfeiffer.

RONALD C. PICOFF '60 MEMORIAL SCHOLARSHIP FUND Established in 1974 by Dr. Picoff's classmates.

TOUSSIA AND KERMIT PINES '42 SCHOLARSHIP FUND Endowed by Florence and Herbert Irving.

PRESBYTERIAN HOSPITAL ALUMNI SCHOLARSHIP Granted with preference to sons or daughters of alumni of Presbyterian Hospital. Given by the Society of the Alumni of Presbyterian Hospital.

WILLIAM COLE RAPPLEYE Established at the retirement of Dean Rappleye.

RICHARD RHODEBECK Given by Mrs. Richard Rhodebeck, in memory of her husband.

JAMES RODISH MEMORIAL SCHOLARSHIP Established by family and friends in memory of James Rodish, to be awarded in alternate years to a student in the School of Nursing and a student in the College of Physicians and Surgeons.

DAVID H. ROUS From family, friends, and business associates of David H. Rous, the income to be divided equally among the Graduate School of Business, Columbia College, and the College of Physicians and Surgeons.

SAGAMORE Awarded to needy students.

JOSEPH E. SAPHIR '02 MEMORIAL Given by Elsa M. Saphir, in memory of her husband, Joseph F. Saphir, Class of 1902.

THE MARY S. SAXE SCHOLARSHIP FUND Bequest of Mary S. Saxe.

ALMA SCHAPIRO ENDOWMENT FUND

AURA E. SEVERINGHAUS Given by faculty members, alumni, and students, in honor of Dr. Severinghaus' services to the College.

BERNARD E. SMITH MEMORIAL Given by Mrs. Gertrude Smith, in memory of her husband.

THE JAMES A. STEVENSON '43 MEMORIAL SCHOLARSHIP Established by Mrs. Ann Stevenson Hardesty, in memory of her brother James Albert Stevenson, Class of 1943.

EDGAR EGINTON STEWART, JR. MEMORIAL Given by Dr. E.E. Stewart, Class of 1906, in memory of his son.

ARTHUR PURDY STOUT MEMORIAL Given by the Arthur Purdy Stout Society.

ARNOLD STURMDORF P&S 1886 Awarded to one or more students in their third or fourth years of medical school. Bequest of Miriam Sturmdorf.

DAVID TORNBERG '73 SCHOLARSHIP ENDOWMENT FUND

DIANA AND P. ROY VAGELOS '54 SCHOLARSHIP Established by P. Roy Vagelos, Class of 1954.

HAROLD S. VAUGHAN '04 Bequest of Dr. Harold Vaughan, Class of 1904.

ANDREA VICALE MEMORIAL Established by Dr. Carmine T. Vicale, in memory of his father.

HERMANN VOLLMER P&S 1883 Established in his memory by his wife.

THEODORE L. VOSSELER Preference is given to graduates of Colgate University. Given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler.

ROBERT M. WECHSLER '45 Given by Dr. I.S. Wechsler, in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945, in memory of their classmate.

ISRAEL WEINSTEIN '26 FELLOWSHIP FUND

WHITING—Dr. FORDYCE B. St. JOHN '09 SCHOLARSHIP FUND Gift by the Mrs. Giles Whiting Foundation, in honor of Dr. Fordyce B. St. John.

DR. JAMES LANCELOT WILSON '16 Awarded to a student selected by the College of Physicians and Surgeons.

LYDIA AND DAVID WOLF SCHOLARSHIP FUND Given by Mr. and Mrs. Wolf to support a needy student of high academic standing and promise.

JOHN C. WOOD, JR. '76 MEMORIAL Established by family and friends in memory of Dr. Wood, Class of 1976.

WOODRUFF

WORTHAM '43M (MARION H. AND EDWIN III) MEMORIAL SCHOLARSHIP FUND

Gift Funds

ANONYMOUS SCHOLARSHIP '65

BALSO P&S ALUMNI SCHOLARSHIP

VALERIE AND GEORGE DELACORTE FOUNDATION Annual gift.

EATON '83 MEMORIAL

GENERAL SCHOLARSHIP GIFT FUND Gifts and memorials by various donors.

HARLOW KEITH HAMMOND TRUST SCHOLARSHIP FUND

CHARLES F. IKLE SCHOLARSHIP AND RESEARCH FUND Grant by the New York Community Trust.

JAMES T. LEE FOUNDATION, Inc. Annual grant to medical students.

RICHARD P. NESTI '61 SCHOLARSHIP

P&S ALUMNI SCHOLARSHIP

LOUIS AND RACHAEL RUDIN. Established by the Rudin Foundation for students of excellence who would not otherwise be able to complete their education.

AURA E. SEVERINGHAUS Established by the Clark Foundation as an unrestricted, discretionary fund to be used primarily for the support of students and student activites. Priority given to fourth-year students who are subjected to increased living and transportation costs because of electing clerkships at the Mary Imogene Bassett Hospital, Cooperstown, N.Y.

JULIUS E. STOLFI MEDICAL EDUCATION AND RESEARCH FUND SCHOLARSHIP

THE SULZBERGER FOUNDATION Annual gift by Judith Sulzberger '49. Awarded to senior students with very good academic records, significant financial need, and plans to pursue careers in family medicine or general internal medicine in nonurban areas.

J. T. TAI FOUNDATION

THORNTON SCHOLARSHIP

UNITED DOCTORS OF HARLEM HOSPITAL Annual gift awarded to entering minority students from the metropolitan area.

RALPH J. VEENEMA SCHOLARSHIP

Loans

Loans are available to all full-time medical students. These funds are provided by various sources, including the federal and state governments, the University, and private agencies as outlined below. Students should be aware that some lending agencies use creditworthiness as one of the criteria for determining eligibility for loans. Therefore, students with poor credit ratings must rectify past problems before they matriculate. This is particularly true for those who may need to borrow in excess of the standard loan portion of the package to cover parental contribution or additional expenses. The College cannot be responsible if students are denied access to loans due to bad consumer credit or problems with prior educational loans.

International students who hold an F1 student visa are eligible to borrow only from University funds and must have co-makers who are citizens or permanent residents of the United States. Co-makers should not be University employees. International students may borrow from federal or state loan funds upon being granted permanent resident visa status in the United States.

External Loans

Federal Stafford Loans. Under the auspices of the Office of Student Financial Assistance of the Department of Education, federally insured loans are available to students with demonstrated financial need. Loans are made by authorized banks, savings and loan associations, credit unions, pension funds, and insurance companies. The annual loan limit for graduate students is $8,500 with a total aggregate indebtedness for $65,500 for both undergraduate and graduate loans. There is a variable interest rate from new borrowers with a first disbursement on or after October 1, 1992. The rate will be adjusted annually with a 9% cap. Deferments are available for in-school periods of enrollment, postgraduate training, unemployment, and economic hardship. Following grace periods and authorized deferments, a student may have up to 10 years to repay the loan.

Unsubsidized Federal Stafford Loans. This program is similar to the Federal Stafford Loan in most respects. The most significant difference is that interest begins to accrue immediately although payments of principal and interest may be deferred while the borrower is in school. The variable interest rate, set annually, has a 9% cap. Not a need-based program, it is intended for students who are not eligible for the subsidized program. Although interest begins to accrue immediately, it may be deferred throughout grace periods and authorized deferments.

Federal Supplemental Loans for Students. This is a federally insured program available to graduate students who may borrow up to $10,000 per year with an aggregate of $73,000. The variable interest rate has a cap of 11% and is set annually. The rate for the 1992-93 academic year was 7.51%. Repayment of principal and interest is deferred while students are in school full time, but interest accrues while students are enrolled. Authorized deferments are similar to those for the Federal Stafford Loan program. Students have up to 10 years to repay after grace and deferment periods have expired.

Alternative Loan Program (ALP). A student is eligible if he/she is currently enrolled in an approved AAMC member school at least half time, is a citizen or national of the United States or a permanent resident with proper evidence of eligibility, has not exceeded maximum loan limits, agrees to notify the loan holder of any change of permanent address or enrollment status, has all outstanding student loans in good standing, i.e., not in default, and/or all outstanding balances on student financial aid programs have been satisfied, meets credit criteria determined by HICA and the lender, and has exhausted Stafford and SLS eligibility. The minimum ALP loan is $1,000 and the maximum is $30,000 to $35,000 (less all other loans borrowed during an academic year).

Health Education Assistance Loan (HEAL). This federally insured program is available to students in the health professions who may borrow up to $20,000 per year with an aggregate of $80,000. It has a variable interest rate that is reassessed quarterly and is equal to the interest rate on the 91-day Treasury Bill plus 3%. Interest accrues at disbursement. During in-school, grace, and deferment periods, interest may be paid semi-annually or be deferred and capitalized. Deferments during internship/residency are available. The maximum repayment period is 25 years.

Other external loan programs are available to medical students. Contact the Office of Student Financial Planning for information.

Columbia University Loans

Federal Perkins Loans. Funds are allocated by the Department of Education to schools, which are responsible for determining both the recipients of such funds and the amounts to be awarded. The program provides long-term, low-interest (5%) loans to students demonstrating exceptional need as defined by the institution. The aggregate amount of Perkins funds a graduate student may receive from all undergraduate and graduate institutions is $30,000; the annual maximum is $5,000. Grace periods (either 6 or 9 months), deferment options, and post-deferment grace periods vary with the date the promissory note is signed. Once grace and deferment periods have expired, the maximum repayment period is 10 years.

Health Professions Student Loans. Funds originally were allocated by the Bureau of Health Manpower of the Department of Health and Human Services to individual medical schools, which are responsible for determining both the recipients of such funds and the amounts to be loaned. Assuming the availability of adequate funding, the maximum loan to a student in an academic year is the cost of tuition plus $2,500. The program provides long-term, low-interest (5%) loans to students with exceptional financial need—expected family contribution must be less than $6,700 per annum. Repayment of HPSL loans may be deferred until the student has completed advance professional training (internship, residency, and fellowships.) Borrowers have 10 years to repay the loan after grace and deferment periods have ended. For new borrowers in the HPSL program—those whose first disbursement is on or after July 1, 1993—the Health Professions Education Extension Amendments of 1992 have changed the name to Primary Care Loan Program (PCL) and added the requirements that recipients agree to enter and complete a residency training program in primary health care no later than four years after graduation and practice in such care until the loan is repaid in full. Failure to comply with the new requirement will result in the balance due on the loan being recomputed from the date of issuance at a 12% interest rate, compounded annually, with the recomputed balance payable within three years.

Loans for Disadvantaged Students (LDS). This program with funding from the Department of Health and Human Services provides long-term, low-interest loans to students from disadvantaged backgrounds. The interest rate (5%) and other provisions are essentially the same as those for the HPSL described above except that there is no primary care specialty requirement.

P&S Dean's Loans. This fund was established by the College to offset the burden of "high interest" loans to students with demonstrated financial need. As with the HPSL loans, repayment of the Dean's Loan may be deferred until the student has completed advanced professional training. (Unlike the HPSL loan, this deferment includes all fellowship, regardless of length.) During periods of deferment, no interest accrues. Following periods of deferment, principal and interest (9%) are repayable over a maximum of 10 years.

University Loan Funds. These are low-interest loans (3%-9%, but most are 9%) available to students who have financial need. Repayment terms vary with each fund. Most require repayment to begin six to nine months after graduation with a maximum repayment period of 10 years.

PETER AMAZON '21 Bequest of Peter Amazon.

LEONARD ALEXANDER ARMS Bequest of Lydia B. Arms, in memory of her husband, to create a revolving loan fund for scholarship and research to medical students and graduate students at P&S.

GEORGE BLUMENTHAL, JR. Used for the assistance of needy students in the medical school.

DR. HARRY BRITENSTOOL '01 MEMORIAL From the estate of Mrs. Blanche B. Ostheimer, in memory of her brother.

CLASS OF 1906 Gifts from various members of the Class of 1906.

CLASS OF 1919 Gifts from various members of the Class of 1919. To be used for loans to deserving students.

CAROL ELISSA GARDNER '41 Established by Dr. M. Jordan Thorstad, in memory of his wife, Dr. Carol Elissa Gardner Thorstad, Class of 1941.

FRANK J. GILLESPIE FUND From the estate of Frank J. Gillespie. To be used for medical students interested in the field of surgery.

DAVID GREENE A bequest from the estate of Fannye Greene Meyerson, in honor of her brother, Dr. David Greene. Used for assistance of needy students in the medical school and Columbia College.

GEORGE L. HAWKINS, Jr. '41 Gift of George L. Hawkins, Jr., Class of 1941.

B. H. HOMAN, JR. REVOLVING LOAN FUND Long-term, low-interest loans for needy students.

WILLIAM AND ROSE KEYBURTZ SCHOLARSHIP LOAN FUND Established by bequest of Dr. Orland L. Keyburtz in honor of his parents.

ROBERT ABBE MACKENZIE '21 Established by friends, colleagues, and patients of Dr. MacKenzie, an alumnus of the Class of 1921.

GEORGE W. MERCK MEMORIAL Established by the Merck Company Foundation in honor of George W. Merck. For graduates of P&S who need to move more than 300 miles from New York City for their residency training.

HENRY NIAS FOUNDATION LOAN FUND Gift of Stanley Edelman, Class of 1953.

JESSIE SMITH NOYES

P&S SCHOLARSHIP AND LOAN ENDOWMENT FUND Given by P&S alumni.

WALTER C. AND MARJORIE C. STEIN Bequest of Marjorie C. Stein.

STEINHARDT MEDICAL SCHOLARSHIP Bequest of Samuel C. Steinhardt. Awarded to graduates of one of the colleges of the City University of New York who have attended public schools exclusively (except for religious instruction). To be repaid in 15 years; without interest for the first 10 years; with 5 percent annual interest thereafter on the unpaid balance.

MRS. AND DR. CLYDE WU, P&S '56 STUDENT LOAN FUND

In addition to the foregoing, periodically there are funds for short-term emergency loans, which are administered through the Health Sciences Office of Student Financial Planning.

Prizes

DR. HARRY S. ALTMAN PRIZE Awarded to an outstanding senior student who demonstrates a special interest in pediatric ambulatory care. Established to honor Dr. Harry S. Altman, in recognition of his outstanding contributions to scholarship in pediatrics.

ALUMNI ASSOCIATION AWARD Given for outstanding achievement.

VIRGINIA P. APGAR '33 AWARD Awarded to an outstanding graduate student for excellence in completing an advanced course in anesthesiology and intensive care. Established by the Department of Anesthesiology in honor of Virginia P. Apgar, Class of 1933.

MICHAEL H. ARANOW AWARD Awarded to the student who exemplifies the caring and humane qualities of the practicing physician.

HERBERT J. BARTELSTONE AWARD IN PHARMACOLOGY Awarded to a member of the graduating class of the College who has demonstrated exceptional accomplishments in pharmacology. Established to honor the memory of Professor Herbert J. Bartelstone, member of the Department of Pharmacology from 1950 until 1973, dedicated and inspiring teacher, and uncompromising advocate of the importance of rigorous preparation in basic medical science in the education of the physician.

ALVIN BEHRENS MEMORIAL FUND AWARD of the Phi Lambda Medical Fraternity Given to an able student planning a career in ophthalmology.

DR. ROBERT BERTSCH AWARD Established by Dr. Bertsch's colleagues in the Department of Surgery to perpetuate the memory of this esteemed physician and dedicated teacher; to be awarded to a graduating student who best typifies the aims and ideals of this devoted surgeon.

COAKLEY MEMORIAL PRIZE Awarded by the Department of Otolaryngology to a senior student who has done outstanding work in the field.

TITUS MUNSON COAN PRIZE Awarded to the senior student who has submitted the best essay in biological science or otherwise best contributed to its advancement. Bequest of Titus M. Coan.

THOMAS F. COCK, M.D. PRIZE Awarded to a senior student for excellence in obstetrics and gynecology.

ROSAMOND KANE CUMMINS '52 AWARD Established by the Alumni Association for excellence in orthopedic surgery, to be given to a member of the graduating class who has demonstrated those special qualities of mind and heart that mark the comforter and healer.

THE MARION MERRELL DOW PRIZE IN GERIATRICS Given to a graduating medical student for outstanding achievement in investigative work in geriatrics.

GATE PHARMACEUTICALS AWARD Given to a graduating student who has excelled in the study of obstetrics and gynecology or family practice.

FREDERICK PARKER GAY MEMORIAL AWARD Awarded to the senior student whose work in microbiology is judged the most outstanding. Given by Mrs. Frederick Parker Gay, in memory of her husband.

LOUIS GIBOFSKY MEMORIAL PRIZE Awarded to a senior student who submits the best research paper in nephrology, dialysis, transplantation, or immunobiology. The award is in memory of Louis Gibofsky.

THE ARNOLD P. GOLD FOUNDATION AWARD Given to a graduating medical student who has demonstrated clinical excellence and the ideals of the humanitarian care giver.

THE DOCTOR CHARLES E. HAMILTON '81 AWARD Established by Mr. Andrew L. Giffuni to honor Dr. Hamilton, P&S Class of 1918, for excellence in pulmonary diseases.

JANEWAY '27 PRIZE Awarded to the student graduating from the College with the highest marks for achievement and ability. Given by the bequest of Matilda S. J. Wisner.

Dr. HAROLD LAMPORT '34 BIOMEDICAL RESEARCH PRIZE Awarded to a senior student for the best thesis reporting original biomedical research. Gift of the Lamport Foundation.

JOHN K. LATTIMER PRIZE IN UROLOGY Awarded to senior students for the best essays on urological subjects.

ROBERT F. LOEB AWARD Awarded to a senior student who, in the opinion of the Department of Medicine, has shown the greatest promise of excellence in clinical medicine. Established in memory of Dr. Robert F. Loeb, Bard Professor of Medicine, and chairman of the Department of Medicine from 1947 to 1959.

F. PHILIP LOWENFISH PRIZE IN DERMATOLOGY Awarded to the individual who has done the most creative and original research in dermatology. Given by Mrs. Lowenfish, in her husband's memory.

ADMIRAL DAVID WILLARD LYON AWARD Awarded to a senior student on a military scholarship for outstanding academic achievement. Established by Dr. Edgar Housepian, Class of 1953, and Mrs. David Willard Lyon in Memory of Admiral Lyon.

DOCTOR CECIL G. MARQUEZ BALSO STUDENT AWARD FOR EXCELLENCE Awarded to a graduating minority medical student for his/her outstanding contribution to the Black and Latin Student Organization and the minority communities.

EDITH AND DENTON McKANE MEMORIAL AWARD Bequest of Edith U. McKane. Awarded to a senior student for excellence in basic or clinical research in ophthalmology.

DR. HAROLD LEE MEIERHOF '17 MEMORIAL AWARD Awarded on recommendation of the professor of pathology to the student who has done the best work in the field during the four years of medical school. Given by the parents of Dr. Harold Lee Meierhof, Class of 1917.

DRS. WILLIAM NASTUK, BEATRICE SEEGAL, AND CONRAD HSU AWARD Given by Dr. Arthur J. L. Strauss, Class of 1958, for a successful student-faculty research collaboration.

MARIE NERCESSIAN MEMORIAL AWARD Gift of Ohannes Nercessian, Class of 1981. Awarded to a senior medical student (preferably of Armenian descent) who has shown care, unusual concern, and dedication to helping sick people.

NEW YORK ORTHOPEDIC HOSPITAL AWARD An annual prize awarded to a senior student upon nomination by the Department of Orthopedic Surgery, for outstanding performance in the field.

JOSEPH GARRISON PARKER '48 AWARD Awarded to the senior in the College who best exemplifies, through a continued personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go on together. Given by Dr. and Mrs. Philip Parker, in memory of their son, Joseph, Class of 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

P&S CLASS OF 1924, DR. ALLEN O. WHIPPLE MEMORIAL PRIZE Awarded to a senior student, upon nomination of the Department of Surgery, for outstanding performance in the field.

DEPARTMENT OF PSYCHIATRY PRIZE Awarded by the Department of Psychiatry to a second-year student for the best work in psychopathology.

SAMUEL W. ROVER AND LEWIS ROVER AWARD IN ANATOMY AND CELL BIOLOGY An annual prize to be awarded to a graduating medical student or graduate student for scholarship and outstanding achievement in research in anatomy and cell biology.

SAMUEL W. ROVER AND LEWIS ROVER AWARD IN BIOCHEMISTRY An annual prize to be awarded to a graduating medical student or a male graduate student for scholarship and outstanding achievement in biochemistry at the College of Physicians and Surgeons.

SAMUEL W. ROVER AND LEWIS ROVER AWARD IN GENETICS AND DEVELOPMENT An annual award to a graduating student or graduate student, who in scholarship and proficiency achieves the greatest distinction in genetics and development.

SAMUEL W. ROVER AND LEWIS ROVER AWARD IN PHYSIOLOGY An annual prize to be awarded to a graduating medical student or graduate student for scholarship and outstanding achievement in research in physiology.

THE SANDOZ AWARD Awarded to a graduating student for excellence in research.

THE REBECCA A. SCHWARZ MEMORIAL PRIZE Given by Dr. and Mrs. Steven Schwarz, Class of 1974, in memory of their daughter, to be awarded to an outstanding student on a pediatric cardiology elective.

HELEN M. SCIARRA PRIZE Awarded to a senior student in the College for outstanding work in neurology.

THE MIRIAM BERKMAN SPOTNITZ PRIZE Given by Dr. Hyman Spotnitz '39 in memory of Mrs. Spotnitz for outstanding research in the field of oncology.

DR. ALFRED STEINER '38 AWARD Presented annually to one or more students chosen by a faculty committee on the basis of achievement in medical research. Funded by the Zale Foundation in honor of Dr. Steiner.

UPJOHN ACHIEVEMENT AWARD For excellence in research by a graduating student.

DR. WILLIAM PERRY WATSON PRIZE IN PEDIATRICS Awarded on the nomination of the professor of pediatrics to that member of the graduating class of the College who has shown the most notable work in the study of diseases of infants and children.

DR. WILLIAM RAYNER WATSON AWARD Awarded to that member of the graduating class who has done the most outstanding work in psychiatry during the four years of attendance at the College of Physicians and Surgeons.

SIGMUND L. WILENS PRIZE Awarded to a member of the graduating class who, in the opinion of the Department of Pathology, has been distinguished by special excellence in pathology. Gift of Dr. Marie Renate Dische Wilens, Class of 1957, in memory of her husband, Dr. Sigmund L. Wilens.

Student and Alumni Activities

All students enrolled by the College enjoy the privileges and facilities of the University campus, including the University libraries.

P&S Club

The P&S Club was founded almost 100 years ago by John R. Mott, who later won the Nobel Peace Prize. The Club is the most active and comprehensive student organization in American medical education today. All matriculated students in the College of Physicians and Surgeons are members, eligible to participate in extracurricular activities of their choice. Under the guidance of the Faculty Advisory Board, the student cabinet, led by the P&S Club president, assumes the entire responsibility for management of the Club. The cabinet consists of one club officer elected from each class and those who chair the various activities.

Alpha Omega Alpha Honor Medical Society

A chapter of Alpha Omega Alpha, the national honor medical society, was founded at the College of Physicians and Surgeons in 1907. Students are elected to membership in the senior year by a committee of the faculty appointed by the Dean. The committee is chaired by the Alpha Omega Alpha Councilor of the College of Physicians and Surgeons. Student membership is determined according to the constitution of the national society. Election is limited to those whose scholastic qualifications place them in the upper 25 percent of the class. The number of student members elected from any class may not exceed one-sixth of the number expected to graduate in that class. Although scholastic excellence is required for membership, integrity, capacity for leadership, compassion, and fairness in dealing with one's colleagues are judged to be of equal significance.

P&S Alumni Association

The P&S Alumni Association serves to foster and maintain cordial relationships between the College of Physicians and Surgeons and its alumni. Liaison with the College is facilitated through the office of the Assistant Dean for Alumni Affairs.

Members of the Alumni Association include all graduates of the College of Physicians and Surgeons—M.D. and Med.Sc.D. degree recipients, holders of Certificates in Psychoanalytic Medicine, and Ph.D graduates of the Basic Sciences Curricula (Anatomy, Biochemistry, Human Genetics, Microbiology, Pathology, Pharmacology, and Physiology). Associate members are faculty members of the College, house staff members, visiting fellows at hospitals that affiliate their postgraduate training with P&S, P&S students, graduate students in the basic sciences, and widows, widowers, or spouses of alumni.

The work of the Alumni Association is accomplished through the efforts of its officers and members of 17 standing committees, all of whom form the constituency of the P&S Alumni Council. Among the important functions of the Association is participation in the publication of *P&S Journal*, which is co-sponsored by the alumni and the medical school and serves as a major form of communication between the school and its alumni, faculty, students and their parents, and other friends and associates of the College.

Restricted revenues raised by the Alumni Association provide funds for the student dormitory and scholarships at P&S. Unrestricted revenues allow the College flexibility in applying funds to areas of greatest need. Traditionally, a substantial stipend from unrestricted revenues goes to the P&S Club and to scholarship aid.

As future alumni, students play an important role in the work and deliberations of the Alumni Association. Through the Student-Alumni Relations Committee, students and alumni work together in addressing students' needs and concerns.

Information about the Alumni Association and its activities is available from the P&S Alumni Relations Office, 630 West 168th Street, New York, NY 10032. Telephone: (212) 305-3498.

The Program of Instruction

The first-year curriculum is devoted largely to basic science courses with correlation clinics to demonstrate the application of scientific information to the practice of medicine. The first-year student also studies the impact of health care systems in our current society on the individual patient and physician. Second-year courses concentrate on the clinical relevance of basic science concepts as the bridging process to clinical instruction begins. Correlations between pathology and pathophysiology are emphasized. Throughout both preclinical years elective opportunities are available for pursuit of areas of interest.

The major clinical year is devoted exclusively to rotations on clerkships in the clinical disciplines. Under close supervision the students are helped to develop the skills and knowledge required for the practice of clinical medicine. Students learn to elicit a comprehensive history and to carry out a complete physical examination. They learn to develop professional relationships with patients, and they acquire an understanding of the mechanisms of disease and of the principles necessary for valid diagnostic appraisal and effective therapeutic plans.

All courses of the first three years of the curriculum are required of all students. In the fourth year, with the guidance of faculty advisers, students design individual elective curricula, drawn from a wide range of basic scientific electives, clinical electives, and research programs offered by the faculty. Each fourth-year student is required to take a one-month elective in ambulatory care which includes clerkship experience in Public Health/Community Medicine. The elective courses of all departments are described in a catalog which is printed annually and distributed to students and faculty. Students are permitted to spend three months of the curriculum in elective programs offered by other medical schools. In addition, the School of Public Health offers international medicine programs that provide opportunities to study the organization and delivery of health services in many countries of the world.

During the elective curriculum students have available the resources of the entire University. Students are encouraged to utilize elective curriculum time to reach career decisions. Faculty advisers stress the acquisition of knowledge and skills in areas of medicine apart from the student's career discipline, and they encourage students to gain experience in clinical and/or laboratory research.

The College reserves the right to make changes in the program of studies and courses of instruction at any time.

Grades, Promotions, and Leaves of Absence

All courses are rated on an Honors-Pass-Fail system, and these ratings only are recorded on the official transcripts. Students are not ranked within the class. Faculty provide narrative descriptions of student performances in preclinical courses (*Abnormal Human Biology, Introduction to the Patient,* and *Psychiatric Medicine I and II*), major clinical year clerkships, and elective programs. These evaluations become part of the student's permanent academic record in the Office of the Dean.

There are three standing faculty committees concerned with students' academic performances. These committees are: The First Year Class Faculty, the Second Year Class Faculty, and the Clinical Committee. The latter deals with academic performances in the major clinical year and the elective curriculum. The standing committees meet during each academic year to review student performances and to make decisions related to course failures and to promotions. Course failures in all years of the curriculum must be corrected according to the directives of the faculty committees. A student may be advanced to the next academic year of the medical school curriculum only upon recommendation of the faculty committee. In any year of the curriculum students may be dismissed for poor scholarship. Repetition of a year of the curriculum may be recommended by a faculty committee. The faculty committees may direct students whose performances are marginal to undertake additional work to correct deficiencies and strengthen overall performance in any discipline.

Students are informed in writing of the academic decisions of all faculty committees. Students have the right to appeal decisions of the faculty committees. A student who wishes to appeal may request the concerned committee to reverse or alter a decision. If the committee reaffirms the original decision, the student may direct an appeal to the Dean of the Faculty of Medicine, who may refer the appeal to the Executive Committee of the Faculty Council for final decision.

The Faculty of Medicine reserves the right to dismiss, or to deny admission, registration, readmission, or graduation to any student who in the judgment of the Faculty of Medicine is determined to be unsuited for the study or practice of medicine.

Students in the College of Physicians and Surgeons are required to pass National Board Examinations Parts I and II prior to graduation.

Leaves of absence may be granted by the Dean for a limited period of time in exceptional circumstances only for health reasons or personal emergencies.

Basic Science and Introductory Clinical Courses of the First and Second Years

First-Year Courses

M5101. Science Basic to the Practice of Medicine
Dr. Chase and interdepartmental associates.
Lectures, conferences, and laboratories integrating principles of biochemistry, molecular and cell biology, tissues, and systems biology.

Medicine M5101. Clinical Practice Issues (CPI) I
Dr. Park and associates.
Lectures, small groups, and interdisciplinary days highlight common health problems of this era and introduce students to basic concepts in epidemiology, the patient-physician relationship, ethics, health care systems, nutrition, disease prevention, and health promotion.

Psychiatry M5101. Psychiatric medicine, I
Dr. Cutler and departmental staff.
Lectures and seminars presenting the salient features of normal development.

Anatomy M5102. Human anatomy
Drs. April, Moss, and departmental staff.
Lectures, conferences, and laboratory encompassing basic morphological and funcational human anatomy.

Anatomy M5103. Human development
Dr. Silverman and departmental staff.
Lectures, demonstrations, and laboratory emphasizing the fundamental processes of embryogenesis; closely integrated with *Anatomy 101F-Microscopic anatomy.*

Anatomy-Physiology M5106. Neural science
Drs. Kandel, Kelly, Kupfermann, Rowland, and Schwartz.
Lectures, seminars, laboratories, and clinical demonstrations to provide an integrated understanding of neurophysiology, neuroanatomy, biochemistry, and behavior.

Second-Year Courses

Medicine M6101. Clinical Practice Issues (CPI) II
Dr. Park and associates.
CPI II will build on the first-year curriculum and present more advanced topics in biostatistics and epidemiology, ethics and society, medical interviewing, and medical humanities. The overall goal is to prepare students for clinical decision-making by instructing them in the critical evaluation of the medical literature and its application to comprehensive clinical practice, attending to the human and social (as well as patho-physiologic) dimensions of medical care.

Microbiology M6101.
Dr. Young and members of the Departments of Microbiology, Medicine, and others.
The integrated second-year curriculum for medical and dental students includes a Combined Lecture Series (CLS) in which faculty from the microbiology course participate. The fall semester (September through December) presents the building blocks for understanding clinical disease, with sections on immunology, infectious diseases, inflammation and repair, and neoplasia. The winter-spring semester (January through May) provides a multidisciplinary approach to organ system disease, including sections devoted to cardiac, pulmonary, neurologic, hematologic, renal, hepatic, gastrointestinal, endocrine, genitourinary, and oncologic diseases. To complement the lecture series, the microbiology course offers small group sessions, which deal with the pathophysiology of disease in the context of case histories.

Pathology M6101.
Drs. Lefkowitch and Marcantonio and members of the Department of Pathology.
The integrated second-year curriculum for medical and dental students includes a Combined Lecture Series (CLS) in which faculty from the pathology course participate. The fall semester (September through December) presents the building blocks for understanding clinical disease, with sections on immunology, infectious diseases, inflammation and repair, and neoplasia. The winter-spring semester (January through May) provides a multidisciplinary approach to organ system disease, including sections devoted to cardiac, pulmonary, neurologic, hematologic, renal, hepatic, gastrointestinal, endocrine, genitourinary, and oncologic diseases. To complement the lecture series, the pathology course offers gross and microscopic laboratories, morning autopsy review, and various elective experiences.

Pharmacology M6101. General and special pharmacology
Dr. Wit, members of the Department of Pharmacology and other participating departments.
This course participates in the combined pathophysiology lecture series for medical and dental students in the second year. This participation is intended to maximize integration of its course material with pathophysiology and pathology. The course's emphasis is on the effects of drugs used for the therapy of disease, on normal and abnormal physiological systems. In the fall semester (September through December) the building blocks for understanding the actions and uses of therapeutic agents are taught followed by drugs used for infectious disease and disorders of the central nervous system. In the winter-spring semester (January through May) lectures are given on drugs used in the treatment of organ system diseases including cardiovascular, pulmonary, renal, endocrine, and oncological. At the end of the year a grade will be given in pharmacology.

Medicine M6102. Applied pathophysiology
Dr. Canfield and interdepartmental associates.
At the discretion of the course director, this course participates in the combined pathophysiology lecture series for medical and dental students in the second year. This participation is intended to maximize integration of course material while, at the same time, reducing redundancy since the content of particular topics has similarities among several courses. In all other respects, including the awarding of grades, this department's teaching effort places emphasis on a comprehensive fund of knowledge of pathophysiology and the ability to apply that knowledge in the analysis of the manifestations of disease.

Psychiatry M6102. Psychiatric medicine, II
Dr. Cutler and departmental staff.
Lectures and seminars covering the major mental illnesses and the elements of patient interviewing.

Public Health M6104. Parasitic diseases
Dr. Despommier and associates.
Lectures and laboratories stressing parasitic diseases likely to be encountered and the techniques necessary for the diagnosis of these diseases.

Medicine M6106. Physical diagnosis
Dr. Siris and associates.
An intensive four-week clerkship (at Harlem, Overlook, Presbyterian, Roosevelt, or St. Luke's Hospital) during which the student learns to take a comprehensive medical history and perform a complete physical examination.

Major Clinical Year

Anesthesiology M7201. Clinical clerkship in anesthesiology
Dr. Curry and staff at the Presbyterian Hospital.
A clerkship that provides training in preanesthetic evaluation, management, and postanesthetic care of surgical patients. At the conclusion of the clerkship students should be able to do the following: (1) describe the major factors to be considered in selecting anesthetic drugs and techniques for patients undergoing common surgical procedures; (2) describe indications for positive pressure ventilation of the lungs and how the adequacy of such ventilation can be determined; (3) differentiate between a patent and obstructed airway in a patient and demonstrate on a patient or mannequin his/her ability to obtain a patent airway by positioning; (4) describe the indications for use of an endotracheal tube; (5) describe procedures used for resuscitation of a patient who has had cardiac arrest and demonstrate on a mannequin his/her ability to perform mouth-to-mouth ventilation and closed chest cardiac massage; (6) describe medications for and contraindications to the use of local anesthetics to provide infiltration and nerve block anesthesia; and (7) describe the causes, prevention, diagnosis, and treatment of local anesthetic drug toxicity.

Dermatology M7201. Clinical clerkship in dermatology
Dr. DeLeo and staff.

Medicine M7201. Clinical clerkship in medicine
Dr. Garvey and staff at the Harlem, Presbyterian, Roosevelt, and St. Luke's Hospitals.
Extended clinical experience under a preceptorship system at Presbyterian Hospital and at another affiliated hospital, Harlem, Roosevelt, or St. Luke's Hospital. At the conclusion of the clerkship the student should be capable of taking a precise medical history, performing an accurate physical examination, interpreting basic laboratory data, formulating a cogent problem list, and communicating these data in accurate verbal and written form. These skills will be acquired in the patient care setting in order to increase the student's understanding of the physiologic, psychologic, and social aspects of medicine and to prepare the student for the assumption of clinical responsibility under close supervision.

Neurology M7201. Clinical clerkship in neurology
Dr. Rowland and staff at the Neurological Institute of the Presbyterian Hospital
A comprehensive experience in clinical neurology provided at the bedside at the Neurological Institute. Under close supervision of a junior and senior resident and an attending physician in neurology, students learn to obtain a systematic neurological history and to perform and interpret the neurological examination. By active participation in the evaluation and care of patients, expertise is obtained in the diagnosis and treatment of common neurological diseases. Students learn how to do a lumbar puncture, and they become familiar with electrodiagnostic and neuroradiological tests. Experience is also obtained in neurosurgery and rehabilitation medicine. Management of neurological emergencies is learned during night call with the senior resident. In addition, a comprehensive core knowledge of clinical neurology is ensured by a course syllabus, daily rounds, and preceptor sessions with the attending physician.

Neurology M7202. Neurosurgery
Dr. Stein and staff at the Neurological Institute of the Presbyterian Hospital.
Included in *Neurology M7201.*

Obstetrics and Gynecology M7201. Clinical clerkship in obstetrics and gynecology
Dr. Koulos and staff at the Harlem, Presbyterian, Roosevelt, and St. Luke's Hospitals.
A comprehensive clerkship in obstetrics and gynecology under close supervision of house staff and attendings. On the gynecological wards and in the clinics the student learns to take a sexual and gynecological history, to examine the breasts, abdomen, and pelvis, to distinguish normal and abnormal findings relative to gynecological disease, and to diagnose and manage benign and malignant gynecologic tumors. The student acquires the skills needed to approach problems of sexuality and an understanding of the impact of changing physiological states in menarche and menopause. On the obstetrical service the student learns the medical and surgical complications encountered during pregnancy and delivery, and the student learns to diagnose and manage pregnancy. The student participates in the conduct of labor, the delivery, and the care of the newborn.

Ophthalmology M7201. Clinical clerkship in ophthalmology
Dr. Donn and staff.

Orthopedic Surgery M7201. Clinical clerkship in orthopedic surgery
Dr. Dick and staff at the Presbyterian Hospital.
On the orthopedic surgery clerkship students learn to perform an orthopedic physical examination and to take an orthopedic history from a patient. The clerkship provides students with insight into the more common musculoskeletal problems (including fractures and trauma) and the basic approaches to management of these

problems by an orthopedic surgeon. The student is expected to gain insight into how the discipline of orthopedic surgery works in conjunction with other specialties and how an orthopedic service provides in-patient and out-patient care.

Otolaryngology M7201. Clinical clerkship in otolaryngology
Dr. Blitzer and staff at the Presbyterian Hospital.
A clerkship designed to teach the skills of physical examination of the ear, nose, and throat and to provide an understanding of certain diseases where this examination is crucial in diagnosis and management. The clerkship includes selected didactic lectures, followed by a preceptor-type experience in the clinic where students examine and work up a number of patients under the direct supervision of a faculty member.

Pediatrics M7201. Clinical clerkship in pediatrics
Drs. Driscoll, Dower, and staff at the Babies Hospital (Presbyterian), Harlem, Roosevelt, and St. Luke's Hospitals.
A clinical clerkship providing both in-patient and ambulatory care experience. The student is introduced to the study of infants and children: growth and development, diseases, and health care maintenance. The student develops basic skills in the following areas: taking the pediatric history from the parents and from the older child; performing the physical examination of the pediatric patient, including the young infant; observing, analyzing, and recording the interaction between parent and child; and ordering and interpreting laboratory tests. The student learns to integrate the data acquired and formulate an appropriate problem list and plan for the patient. The student also learns to make the basic measurements of physical, neurological, and psychosocial growth and development, and to plot and assess the data.

Psychiatry M7201. Clinical clerkship in psychiatry
Dr. Marcus and staff at the New York State Psychiatric Institute, Harlem, Presbyterian, Roosevelt, and St. Luke's Hospitals.
A comprehensive clerkship in psychiatry. In active participation in patient care under faculty supervision the student is expected to learn to conduct a psychiatric history and mental status examination and to develop refined interviewing skills, noting verbal and nonverbal behavior. The student learns to make a psychiatric differential diagnosis, to use psychotropic drugs effectively, to evaluate suicide potential, and to develop and enhance therapeutic rapport. The clerkship aims to provide an appreciation of the effects of psychological, social, and biological phenomena on illness-related behaviors.

Radiology M7201. Diagnostic radiology (medical)
Dr. Alderson and staff.

Radiology M7202. Diagnostic radiology (surgical)
Dr. Alderson and staff.

Rehabilitation Medicine M7201. Clinical rehabilitation medicine
Dr. Lieberman and staff at the Neurological Institute of the Presbyterian Hospital.
Included in *Neurology M7201.*

Surgery M7201. Clinical clerkship in surgery
Dr. Reemtsma and staff at the Presbyterian Hospital.
A comprehensive clinical clerkship during which the student is expected to demonstrate improvement in ability to perform histories and physical examinations on surgical patients and to formulate rational diagnostic and therapeutic plans. The student is expected to demonstrate increasing skill and competence in performing selected procedures, in assuming supervised responsibility for patient care, in communicating succinctly and with clarity to patients and colleagues, and in building a functional body of critically examined information regarding common surgical entities.

Surgery M7202. Lectures and demonstrations in surgical pathology
Dr. Reemtsma and staff; Dr. Perzin and staff.
As part of the surgical clinical clerkship (*Surgery M7201*), these three one-and-a-half hour sessions per week describe various selected problems in surgical pathology. The didactic lectures are presented by the surgical "academic senior resident" (PGY5). This resident presents the clinical aspects of various surgical diseases and is assisted by a surgical pathology senior resident, who demonstrates gross specimens and microscopic slides appropriate to the topics and patients being discussed.

Urology M7201. Clinical clerkship in urology
Dr. Olsson and staff.
During the clinical clerkship in urology students learn to identify common disorders of the genito-urinary tract through precise patient interviews and examinations. Both ambulatory and in-patients are evaluated. By knowing diagnostic methods unique to urology, students are able to formulate appropriate diagnostic and therapeutic plans.

Fourth Year

Interdepartment 301. Ambulatory care/public health selective
Dr. C. Ortiz-Neu, course coordinator.
Each student in the fourth year is required to select an elective in ambulatory care, which includes clerkship experience in Public Health/Community Medicine. (For the rest of the Fourth Year see page 47 and the elective catalogue.)

Special Programs

Ph.D. Program

Under the aegis of the Graduate School of Arts and Sciences of Columbia University, Ph.D. programs are offered in the basic sciences departments of the College of Physicians and Surgeons. All students admitted in this program are provided full tuition, health insurance, and a stipend for personal expenses.

For application and information contact Dr. Philip Feigelson, Associate Dean, Office of Graduate Affairs, 701 West 168th Street, Room 406, New York, NY 10032, telephone (212) 305-8058, fax (212) 305-1031.

M.D.—Ph.D. Program

This is a cooperative program sponsored by the Graduate School of Arts and Sciences and the College of Physicians and Surgeons for students who have had a strong undergraduate program in science and have a strong commitment to biomedical research. The program allows students to work toward the Ph.D. degree in one of the disciplines listed below in addition to earning the M.D. degree.

Students who participate in the program are admitted to the College of Physicians and Surgeons and to the Graduate School of Arts and Sciences.

Students complete the basic science requirements of the medical program and enter a participating department of the Graduate School to carry out the Ph.D. program. They then complete the balance of the requirements for the M.D. degree.

The participating Ph.D. programs are:

Anatomy and Cell Biology
Biochemistry and Molecular Biophysics
Biological Sciences
Chemistry
Epidemiology
Genetics and Development
Statistics
Microbiology
Nutrition
Pathology
Pharmacology
Physiology and Cellular Biophysics
Psychology

For additional information students should write to Dr. David Schacter, Chairman, Graduate Biomedical Sciences Advisory Committee, Department of Physiology and Cellular Biophysics, College of Physicians and Surgeons, 630 West 168th Street, New York, N.Y. 10032.

To apply, students should request an application from the College of Physicians and Surgeons. The application form provides instructions for students applying to the M.D.-Ph.D. program.

Joint M.D./M.P.H. Program

This dual degree program is under the joint direction of the College of Physicians and Surgeons and the School of Public Health. In addition to preclinical and clinical medical training, students gain substantive knowledge of the methods and content needed to protect and improve the health of populations and communities. Methods available include those of biostatistics, epidemiology, the social sciences and management. Students choose from content areas includ-

ing problems of the environment, health care delivery, international health, geriatrics and gerontology, maternal and child health, disease prevention and health promotion or concentrate in methodology. Students are prepared for careers as traditional public health officers or a wide variety of opportunities for research or practice in both the private and public sector of the economy. They develop concrete skills of research or administration applicable in interdisciplinary health service settings, both clinical and community based.

Before being considered for admission to the joint degree program, the applicant must first be accepted as a degree candidate in the College of Physicians and Surgeons. Formal application to the School of Public Health may then be made at any time before the student enters the fourth year of medical training. The overall length of the joint program, registration, and scheduling patterns differ for individual students. The total elapsed time could be as short as four years, but might extend beyond the four-year graduation date of the medical school. In general, during the first three years the joint degree student uses vacation and free time in the medical schedule to cross-register for public health courses. In the fourth year the student registers concurrently in the two schools, permitting opportunities to complete core, track, and elective public health courses and also carry the required clinical elective work in the medical curriculum. The M.D. and the M.P.H. degrees may be awarded simultaneously at the end of the fourth year; either degree may be awarded separately when the requirements have been met.

For further information, consult the Dean's Office in the College of Physicians and Surgeons, 630 West 168th Street, New York, N.Y. 10032, or the Dean's Office in the School of Public Health, 600 West 168th Street, New York, N.Y. 10032.

MS/MD, MS/DDS Programs (Health Services Management and Medicine/Dentistry)

The Columbia School of Public Health Program in Health Services Management is a new program specially designed for medical and dental students who wish to acquire the skills and discipline needed to direct and manage the health care system of the 21st century and who are willing to lengthen their medical or dental education by one year. The program encourages these students to move beyond traditional clinical roles when making career decisions and to aim for added leadership responsibilities in planning, policy-making, and managing health care organizations. This educational experience in management and public health provides an exceptional opportunity for students to become well-grounded in management science, health economics, financial management, medical care organization, and public health in the initial phases of their training. It also develops participants' problem-solving skills and decision-making capability.

The medical student option begins during the summer after the first year of medical school with an intensive 12-day, 6-credit summer institute that addresses core issues in health policy and management and the politics of health care. This educational experience helps to establish an integrated learning community among students with similar interests. The formal course of study continues after the third year of medical school when students enroll full time for a year at the School of Public Health. During fourth-year medical school rotations, participants will elect a 3-credit, three-month practicum. Practicums will be set up under the guidance of a physician-administrator preceptor on an individual basis, depending on student interests and professional goals and objectives.

For further information, contact Dr. Sheila Gorman, Dual Degree Program, Division of Health Policy and Management, Columbia School of Public Health, 600 W. 168th St., New York, NY 10032, (212) 305-3724.

Executive Master of Public Health in Health Services Management or Maternal and Child Health (MCH)

This program is designed for health professionals who wish to remain employed while studying for the Master of Public Health (MPH) degree. The program fosters the development of managerial skills necessary for professional leadership in the public, non-profit, and for-profit sectors of the health care system in the 1990s and beyond. It also acquaints managers with the complex,

changing public and private policy environments in which they and their organizations work. The goal of the program is to develop skilled, knowledgeable managers who can effectively meet the multiple, growing responsibilities of American health care institutions.

The MCH option is designed for candidates whose primary interest is in maternal and child health. It concentrates on four MCH-related areas: core public health methodologies; survey of maternal and child health principles and practices; health promotion, MCH program and policy development; and administration and accounting. The required plan of study substitutes four required MCH courses (12 credits) for 12 credits of the standard health services management program. There are opportunities for MCH practicum experiences through ongoing MCH basic, applied, and policy-related research activities.

An executive MPH class enters each September. Participants attend classes as a group. Program sessions are held once each month from 9 a.m. to 5 p.m. Thursday to Saturday and 9:30 a.m. to 12:30 p.m. Sunday. For further information, contact Susan D. Cohen, MPH, Program Coordinator, Executive MPH Program, Division of Health Policy and Management, Columbia School of Public Health, 600 W. 168th St., New York, NY 10032, (212) 305-3934.

Integrated M.D.—Oral and Maxillofacial Surgery Program

This program is a cooperative effort of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the Presbyterian Hospital. It has been designed to train specialists equipped to handle the expanded scope of maxillofacial surgical practice and to provide academic, research, and clinical leadership in this area. The program combines study for the M.D. degree at the College of Physicians and Surgeons with residency training in oral and maxillofacial surgery and general surgery at Presbyterian Hospital. Candidates must be accepted for admission to both the College of Physicians and Surgeons and the residency training program in oral and maxillofacial surgery. Interested candidates should request further information and an application form from Dr. Steven M. Roser, Division of Oral and Maxillofacial Surgery, School of Dental and Oral Surgery, 630 West 168th Street, New York, N.Y. 10032.

Programs in Occupational Therapy

The Programs in Occupational Therapy offer an entry-level M.S. degree, a post-professional M.S. degree, and the only joint M.S./M.P.H. degree (with the School of Public Health) in the country. The Programs provide students with a strong foundation in the major treatment areas and prepare them for work with all age groups in a variety of institutional, community, and private practice settings. Graduates of the programs have distinguished themselves as leaders in the profession, working as master clinicians, educators, researchers, administrators, and consultants. The structure of each program allows for multidisciplinary learning and practicum experiences with close faculty-students interaction. Specializations in education, administration, pediatrics, and gerontology/geriatrics are available at the advanced level.

Program in Physical Therapy

Columbia offers an entry-level Master of Science Physical Therapy Program. The goal of the curriculum is to prepare graduates who are self-directed generalists with clinical problem-solving skills. The Program provides a comprehensive foundation of basic principles in the art and science of physical therapy. Graduates are prepared to develop specialty skills, contribute to the leadership and growth of physical therapy, and advance the quality of health care through clinical research and collaboration with other professionals. The Master of Science degree is awarded upon completion of academic study, research, and clinical internships. Students complete an independent faculty-directed research project culminating in a master's thesis. The Program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association and is registered by the Department of Education of the State of New York.

Program of the Center for Psychoanalytic Training and Research

A course of training in the theory and practice of psychoanalytic medicine is offered through the Center for Psychoanalytic Training and Research of the Department of Psychiatry. The program, a minimum of four years in length, leads to the award of a certificate in Psychoanalysis. For details, see the bulletin of the Center (formerly the Psychoanalytic Clinic).

Programs in Nutrition

The Master of Science program, administered by the Postgraduate Division of the Faculty of Medicine, is a 12-month program that serves as a foundation for students who plan to continue for the Doctor of Philosophy degree or to attend a professional school in the health sciences. In addition, the master's program is offered to physicians and other health specialists who wish to augment their training with a knowledge of nutrition.

Requirements for admission: a bachelor's degree from an accredited college, with a strong emphasis on the sciences, including two years of chemistry, one year of biology, and a course in elementary biochemistry. The Graduate Record Examination is required.

The Doctor of Philosophy program in nutrition is under the jurisdiction of the Executive Committee of the Graduate School of Arts and Sciences. Course work and thesis research leading to the Ph.D. are carried out under the guidance of the Doctoral Subcommittee in Nutrition. The Ph.D. program is designed to train individuals who are interested in pursuing a career in research and teaching in the field of nutrition. The primary goal of the Ph.D. program is to provide thesis training in the nutritional sciences, although some limited opportunities for research in the fields of clinical and public health nutrition are available.

Requirements for admission to the Ph.D. program: very highly qualified and motivated students who have demonstrated scholarly ability for pursuing advanced studies and research, with undergraduate degrees in nutrition, biochemistry, biology, chemistry, or related basic science programs will be considered for direct admission into the Ph.D. program. Directly admitted students who lack formal training in nutrition are expected to fill deficiencies in their course work through course offering from the Master of Science Program outlined above. Others who have successfully completed the Master of Science degree program, or its equivalent, and who have demonstrated ability and aptitude for pursuing advanced studies and research also will be considered for admission. All students must fulfill the specific degree requirements set by the Doctoral Subcommittee in Nutrition and the general degree requirements that govern all Ph.D. candidates in the University. The Graduate Record Examination is required of all applicants.

Postdoctoral training in nutrition is offered for qualified individuals holding the degree of Doctor of Medicine, Doctor of Philosophy, or other doctorates in the health professions (dentistry, nursing, optometry, public health). The postdoctoral training is intended for individuals who are pursuing careers in teaching and research in nutrition, with a special emphasis in the modern nutritional sciences. Research projects, selected nutrition courses, seminars, and participation in clinics are offered to qualified individuals. This program has considerable flexibility and is arranged with the individual and his/her preceptor to suit his or her particular goals and needs.

Endowed Lectureships and Visiting Professorships

Through the kindness of generous donors, the resources of the Faculty of Medicine include several distinguished lectureships and a visiting professorship:

The *Cartwright Lecture Fund,* established under the will of Benjamin Cartwright, made possible biennial lectures under the sponsorship of the P&S Alumni Association during the period 1881–1912. A new series of Cartwright Lectures was inaugurated under the College's auspices in November 1974.

The *Alexander Ming Fisher Lectures* were established under the terms of the will of Dr. A.M. Fisher's half-brother, E. Douglas Southwick, to make possible lectures on the general theme of Death and Dying.

The *Michael Heidelberger Lectures* were begun in 1955 to honor the notable contributions of Dr. Heidelberger, and to stimulate further scientific progress in immunochemistry and related disciplines.

The *Ludwig Schaefer Visiting Professorship* was established by the bequest of the late Ludwig Schaefer to encourage and promote research work in the sciences of human physiology. It provides for the appointment of a visiting professor for six months, from parts of the world other than North and South America.

The *David Seegal Lectureship and Visiting Professorship Fund,* given by the Alpha Omega Alpha Honor Medical Society and others, provides for the appointment of a visiting professor who is in residence for five days. During this time he or she delivers the David Seegal Lecture on Chronic Disease.

Prizes and Awards

The *Distinguished Service Award* of the College of Physicians and Surgeons is given annually at Commencement exercises to a member of the faculty for outstanding contributions to medicine.

The *Louisa Gross Horwitz Prize,* the recipient of which traditionally gives a public lecture, was established under the will of the late S. Gross Horwitz in honor of his mother and is given annually in recognition of outstanding basic research in the fields of biology or biochemistry.

The *Charles W. Bohmfalk Memorial Prizes for Distinguished Contributions to Teaching in the Preclinical Sciences* and for *Teaching in the Clinical Sciences,* established in memory of a graduate of the class of 1883 and given to a member of the faculty for significant contributions to educational programs of the College.

The *Dr. Harold and Golden Lamport Research Awards* were initiated in 1983 to recognize outstanding young researchers in basic science and in clinical science.

The *Joseph Mather Smith Prize* is awarded to the graduate of the College whose original research in medical subjects is deemed by the Dean's Advisory Committee on Honors and Awards to be the most meritorious.

The *Stevens Triennial Prize* is awarded to the person, not necessarily a graduate of the College, whose original research on any medical subject is deemed by the Dean's Advisory Committee on Honors and Awards to be the most meritorious.

The *Dean's Award for Excellence in Research* is awarded to the graduating Ph.D. student, selected by a joint faculty and student committee, whose thesis research was most original and distinguished.

Postgraduate Programs

Postgraduate Courses for Practicing Physicians

Practicing physicians are offered a variety of courses to keep them abreast of new knowledge of diagnosis, treatment, and prevention of disease. These courses use a variety of educational formats, depending on the content of the material involved and the objectives of the course. No University credit or certificates are granted for these courses, but Continuing Medical Education credit is granted toward the Physicians Recognition Award of the American Medical Association.

Departments of Instruction

Listed are faculty appointments as of January 1, 1993.

The designation "also" indicates that the faculty member holds appointments in two departments. The designation "in" is used when an individual holds an appointment in the department where listed, with assignment to the department named after the "in".

Anatomy and Cell Biology

Professor and Chairman

Michael D. Gershon. *B.A., Cornell, 1958; M.D., 1963*

Professors

Anthony Bellve (in Urology and the Center for Reproductive Sciences). *B.Ag.Sc., Massey (New Zealand), 1964; M.Ag.Sc., 1967; Ph.D., North Carolina State, 1970*
Philip W. Brandt. *B.A., Swarthmore, 1952; M.S., Pennsylvania, 1957; Ph.D., Columbia, 1960*
Ronald K. H. Liem (also Pathology) (in the Center for Neurobiology & Behavior). *B.A., Amherst, 1967; M.S., Cornell, 1969; Ph.D., 1973*
Carol A. Mason (also Pathology) (in the Center for Neurobiology & Behavior). *B.S., Chatham, 1967; M.A., California (Berkeley), 1969; Ph.D., 1973*
Melvin L. Moss (also Dental and Oral Surgery). *B.A., New York University, 1942; D.D.S., Columbia, 1946; Ph.D., 1954*
Eladio A. Nunez. *B.S., St. John's (New York), 1951; M.S., 1953; Ph.D., New York University, 1964*
Ann-Judith Silverman. *B.A., California (Los Angeles), 1967; Ph.D., 1970*
Virginia M. Tennyson (also Pathology). *B.S., Pennsylvania State, 1946; M.S., Baylor, 1956; Ph.D., Columbia, 1960*
Dominique Toran-Allerand (in the Center for Reproductive Sciences). *B.A., Smith, 1955; M.D., Albany Medical College, 1959*

Professor of Clinical Neurochemistry

Hadassah Tamir (in Psychiatry). *M.S., Hebrew (Jerusalem), 1955; M.D., Israel Institute of Technology, 1959*

Associate Professors

Richard T. Ambron. *B.S., Villanova, 1965; Ph.D., Temple, 1971*
Ernest W. April. *B.S., Tufts, 1961; Ph.D., Columbia, 1969*
Jeannette C. Bulinski (also Pathology). *B.A., Colorado, 1973; Ph.D., Wisconsin, 1980*
David R. Colman (also Pathology) (in the Center for Neurobiology & Behavior). *B.A., New York University, 1970; Ph.D., State University of New York (Downstate), 1977*
Richard H. Kessin. *B.A., Yale, 1966; Ph.D., Brandeis, 1971*
Lorna W. Role (in the Center for Neurobiology & Behavior). *B.A., Harvard, 1975; Ph.D., 1981*
Ira A. Tabas (also Medicine). *B.S., Tufts, 1975; M.D., Washington, 1981*

Associate Professor of Clinical Neurobiology & Behavior

Samuel M. Schacher (in Psychiatry). *B.S., Columbia, 1971; M.A., 1974; Ph.D., 1976*

Research Scientists

Alcmene Chalazonitis. *B.S., d'Aix-Marseille (France), 1965; M.S., 1970; Ph.D., Louis Pasteur (France), 1975*
John E. Pintar (in the Center for Reproductive Sciences and the Center for Neurobiology & Behavior). *B.A., Case Western Reserve, 1970; Ph.D., Oregon, 1977*
Taube Pearl Rothman (also the Center for Neurobiology & Behavior). *B.A., City College of New York, 1969; Ph.D., Cornell, 1975*
Joan W. Witkin. *M.A., Columbia, 1975; Ph.D., 1981*

Assistant Professors

Gregg G. Gundersen (also Pathology). *B.S., Wisconsin, 1977; Ph.D., Washington, 1983*
Annette L. Kirchgessner. *B.A., Hunter, 1979; M.A., Queens, 1981; Ph.D., State University of New York (Brooklyn), 1985*
Liza A. Pon. *B.A., California (Berkeley), 1981; Ph.D., Tufts, 1986*

Assistant Professor of Pathology

Eugene E. Marcantonio. *B.A., Rutgers, 1977; M.D., Ph.D., New York University, 1984*

Adjunct Assistant Professors

Craig H. Bailey (in Psychiatry and the Center for Neurobiology & Behavior). *B.A., Lehigh, 1967; M.S., 1969; Ph.D., 1973*
Larry D. Witte. *B.S., Iowa State University, 1970; Ph.D., 1974*

Assistant Professor of Clinical Psychiatry

Stephen G. Rayport (in the Center for Neurobiology & Behavior). *B.A., Harvard, 1975; Ph.D., Columbia, 1981; M.D., 1982*

Associate Research Scientists

Jing-Xian Chen. *M.D., Chaohu (China), 1974; M.S., Anhui (China), 1983; Ph.D., Shanghai (China), 1989*
Elena Fiorica-Howells. *Ph.D., Milan (Paris), 1980*
Marthe J. Howard. *B.A., California, 1973; M.A., San Francisco State, 1978; Ph.D., California, 1984*
Tuan Duc Pham. *B.S., St. Edward's (Texas), 1962; M.S., Loyola, 1967; M. Phil., Ph.D., Columbia, 1975*
Robert Schmied. *B.A., Cornell, 1972; M.A., Hunter, 1978; Ph.D., Columbia, 1987*
Paul R. Wade. *B.S., Nebraska, 1975; M.S., Kansas State, 1978; Ph.D., Nevada, 1987*
Daniel R. Webster. *B.A., DePauw, 1978; Ph.D., Miami, 1984*

SPECIAL LECTURER

Robin M. Rankow, M.D.

Anesthesiology

E. M. Papper Professor and Chairman

Edward D. Miller, Jr. *B.A., Wesleyan, 1964; M.D., Rochester, 1968*

At Presbyterian Hospital

Professors

Henrik H. Bendixen. *M.D., Copenhagen, 1951*
Mieczyslaw Finster (also Obstetrics & Gynecology). *B.A., Gymnasium (Poland), 1941; M.D., Geneva, 1957*
Allen I. Hyman. *B.A., Columbia, 1955; M.D., Albany Medical College, 1959*
Hisayo Morishima (in Obstetrics & Gynecology). *M.D., Toho (Tokyo), 1951; Ph.D., Tokyo 1960*
Eugene J. Pantuck. *B.S., Tufts, 1959; M.D., 1963*
Lubos Triner. *M.D., Charles (Prague), 1955; Ph.D., 1961*

Professors of Clinical Anesthesiology

Leonard Brand. *B.S., Yale, 1946; M.D., Columbia, 1949*
Richard S. Matteo. *B.A., Syracuse, 1950; M.D., State University of New York (Upstate), 1955*
Hilda Pedersen. *M.B.,Ch.B., Edinburg, 1958*
Peter T. Rothstein (also Pediatrics). *B.A., Brandeis, 1966; M.D., Albert Einstein, 1970*
Jen-Tien Wung (in Pediatrics). *M.D., Tapei Medical College, 1966*

Clinical Professor

Donald C. Brody. *B.A., Harvard, 1952; M.D., Boston, 1956*

Senior Research Scientist

Salha S. Daniel (also Pediatrics). *B.S., London, 1954; Ph.D., 1957*

Associate Professors

Arthur D. Finck. *B.S., Lafayette, 1969; M.D., Columbia, 1972*
Leila M. Pang. *B.A., Hawaii, 1966; M.D., State University of New York (Downstate), 1970*
J. Gilbert Stone. *B.A., Dartmouth, 1960; M.D., State University of New York (Downstate), 1964*
William L. Young. *B.A., Indiana, 1976; M.D., 1980*

Associate Professors of Clinical Anesthesiology

Ellise S. Delphin. *B.A., Barnard, 1971; M.D., Columbia, 1975*
Carolyn P. Greenberg. *B.A., Stanford, 1962; M.D., California (San Francisco), 1966*
Hoshang Jal Khambatta. *M.D., Karachi, 1958*
Eugene Ornstein. *M.S., Polytechnic Institute of Brooklyn, 1973; Ph.D., 1977; M.D., Miami (Florida), 1979*
Charles Weissman (also Medicine). *B.A., Yeshiva, 1972; M.D., State University of New York (Downstate), 1976*

Associate Professor of Clinical Bioengineering

Alvin Wald. *B.E.E., Cooper Union, 1955; M.E.E., Polytechnic Institute of Brooklyn, 1960; Ph.D., New York University, 1974*

Associate Professor of Clinical Psychology

Robert Dworkin (in Psychiatry). *B.A., Pennsylvania, 1971; Ph.D., Harvard, 1977*

Associate Clinical Professors

Keith J. Bernstein. *B.A., New York University, 1968; M.D., State University of New York (Downstate), 1974*
Anthony R. Brown. *M.B.,Ch.B., Capetown (South Africa), 1972*
Kathryn A. W. Cozine. *M.D., Johns Hopkins, 1961*
Pat J. Martin. *M.D., Columbia, 1974*
Samantha Mullis. *B.S., Michigan State, 1975; M.D., 1979*
Richard K. Raker. *B.A., Michigan (Ann Arbor), 1969; M.D., 1973*
Peter L. Salgo (also Medicine). *B.A., Columbia, 1971; M.D., 1975*

Research Scientists

Subhash Jamdar. *B.S., Government Science (Nagpur), 1960; Ph.D., Nagpur, 1966*
Yvonne Vulliemoz (also Pharmacology). *M.S., Lausanne, 1958; Ph.D., Paris, 1969*

Assistant Professors

Mitchell F. Berman. *B.A., Brown, 1977; M.D., Michigan 1981; M.P.H., Harvard, 1983*
Saundra Curry. *B.A., Cornell, 1974; M.D., 1982*
Marc L. Dickstein. *B.A., Pennsylvania, 1983; M.D., Columbia, 1987*
Mark Heath. *B.A., Harvard, 1983; M.D., North Carolina, 1986*
Eric J. Heyer (also Neurology). *B.S., Chicago, 1968; M.D., Ph.D., Albert Einstein, 1975*
Douglas T. Jackson. *J.D., New York University, 1974; M.D.,Temple, 1983*
Desmond A. Jordan. *B.S., Cornell, 1974; M.D., Brown, 1979*
Robert Kazim. *B.A., Columbia, 1983; M.D., 1987*
Matthew T. Levine. *B.A., State University of New York (Buffalo), 1980; M.D., Tel Aviv (Israel), 1984*
Michael Luvin. *B.S., M.D., Union, 1983*
John S. Mercer. *B.S., Scranton, 1980; M.D., College of Medicine and Dentistry of New Jersey, 1987*
Amy E. Mesa-Jonassen. *B.A., Rice, 1981; M.D., Columbia, 1986*
Berend Mets. *M.B.,Ch.B., Stellenbosch (South Africa), 1980*
William Schechter (also Pediatrics). *B.A., Columbia, 1976; M.S., New York University, 1978; M.D., State University of New York (Buffalo), 1982*
Arthur E. Schwartz. *B.S., Rensselaer Polytechnic Institute, 1978; M.D., State University of New York (Downstate), 1982*
Steven M. Shulman. *B.A., Massachusetts, 1978; M.D., 1984*
Richard N. Siegfried. *B.A., Pennsylvania, 1983; M.D., State University of New York (Downstate), 1987*
Wendy B. Silverstein. *B.A., New York University, 1982; M.D., 1986*
Eric L. Skolnick (also Pediatrics). *B.A., Queens (New York), 1976; M.D., Medical College of Pennsylvania, 1980*
Arthur J. Smerling (also Pediatrics). *B.A., Yeshiva, 1976; M.D., Pittsburgh, 1980*
Richard M. Smiley. *B.S., Massachusetts Institute of Technology, 1977; M.A., Columbia, 1978; Ph.D., 1981; M.D., Miami, 1983*
Lena S. Y. Sun (also Pediatrics). *B.S., Massachusetts Institute of Technology, 1975; M.D., Mt. Sinai, 1979*
Howard A. Zucker (also Pediatrics). *B.S., McGill, 1979; M.D., George Washington, 1982*

Assistant Professors of Clinical Anesthesiology

Dorothy A. Black. *B.A., Rutgers, 1957; M.A., Columbia, 1959; M.D., Harvard, 1965*
Albert N. Faltas. *M.D., Kasr-El-Ainy Medical School (Egypt), 1961*
Ingrid Anne-Marie Fitz-James (also Pediatrics). *B.A., Sarah Lawrence, 1973; M.D., Columbia, 1977*
Laurence P. Mark. *B.S., Harvey Mudd, 1975; M.D., Columbia, 1979*
Gerald S. Weinberger. *M.D., New York University, 1948*

Assistant Professor of Clinical Comparative Anesthesiology

Sulli J. Popilskis (in the Institute of Comparative Medicine). *D.V.M., Lithuanian Veterinary Academy, 1983*

Associate Research Scientists

Edith M. Cooper. *B.A., Mount Holyoke, 1981; Ed.M., Harvard, 1983; Ph.D., Columbia, 1992*
Noeleen D. Ostapkovich. *B.A., San Diego State, 1977*

SPECIAL LECTURER

Vance R. Lauderdale, Jr., M.D.

ASSOCIATE IN CLINICAL ANESTHESIOLOGY

June Walker, B.A.

At Mary Imogene Bassett Hospital

Associate Clinical Professor

Andrew L. Rauscher. *M.B., London, 1963; M.B.,B.S., 1966*

Assistant Clinical Professors

Peter J. Gencarelli. *B.A., Rochester, 1973; M.D., State University of New York (Syracuse), 1977*
Edward Palmer. *B.A., Dartmouth, 1967; M.D., Cornell, 1971*
Scott P. Palmer. *B.S., Syracuse, 1984; M.D., State University of New York (Syracuse), 1988*

At Harlem Hospital Center

Assistant Professors of Clinical Anesthesiology

Yvetot Antoine. *M.D., State University of Haiti, 1962*
Gilbert Phanor. *B.S., Lycee T. Gilboro, 1953; M.D., Medical School of Haiti, 1960*
J. Sinclair Trimiar. *B.S., Howard, 1960; D.D.S., 1964*

Assistant Clinical Professors

Clarissa P. Carino. *B.S., Far Eastern (Manila), 1966; M.D., 1968*
Young In Choi. *M.D., Ewha Woman's University (Seoul), 1975*
Jacques Dole. *M.D., Medical School of Port-au-Prince (Haiti), 1972*
Moe M. Myint. *M.B.,B.S., Institute of Medicine I, (Rangoon, Burma), 1970*
Jung Kie Park. *B.S., Soyang (Seoul), 1972; M.D., Han Yang (Seoul), 1977*
Jose L. Saladin. *B.S., Benefactor-San Cristobal (Santo Domingo), 1959; M.D., Universidad Autonoma (Santo Domingo), 1970*

SPECIAL LECTURER

Samuel C. Brisbane, M.D.

At Overlook Hospital

Assistant Clinical Professors

John Rocco Calabro. *B.S., Manhattan, 1971; M.D., College of Medicine and Dentistry of New Jersey, 1975*
Henry A. Connolly, Jr. *B.S., Fordham, 1951; M.D., Hamburg, 1955*
Demetrios B. Kalas. *M.D., Aristotelian, 1954*

INSTRUCTORS IN CLINICAL ANESTHESIOLOGY

Sami A. M. Abadir, M.D.
Jane De V. Stark, M.D.
Carol E. Zimmerman, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Anesthesiology

Daniel M. Thys. *M.D., Catholic University (Leuven, Belgium), 1972*

Associate Professor of Clinical Anesthesiology

Zaharia Hillel. *B.S., City College of New York, 1971; Ph.D., Albert Einstein, 1977; M.D., Miami, 1981*

Assistant Professors of Clinical Anesthesiology

David J. Birnbach. *M.D., Royal College of Surgeons, 1984*
Ennio Gallozzi. *M.D., Rome, 1953*
Robert Koorn. *M.B.,B.Ch., Witwaterarand (South Africa), 1979; M. Med., Pretoria (South Africa), 1988*
Steven M. Lasker. *B.S., Illinois, 1981; M.D., 1985*
Kenneth Zahl. *A.B., New York University, 1977; M.D., Columbia, 1981*

Assistant Clinical Professors

Ignacia U. Ngo. *A.A., University of the East (Manila), 1959; M.D., 1964*
Nirmal V. Patel. *M.B.,B.S., Seth G.S. Medical College (India), 1973*
Sara S. Trope. *M.D., Cape Town (South Africa), 1970*

ASSOCIATE IN CLINICAL ANESTHESIOLOGY

Guglielmina Bettini, M.D.

INSTRUCTORS IN CLINICAL ANESTHESIOLOGY

Gary S. Feldstein, M.D.
Dilber Hussein, M.D.
Zdan J. Korduba, M.D.

Biochemistry and Molecular Biophysics

Robert Wood Johnson, Jr., Professor and Chairman

David I. Hirsh. *B.A., Reed, 1961; Ph.D., Rockefeller, 1968*

Professors

Richard Axel (Eugene Higgins Professor) (also Pathology) (in the Institute of Cancer Research). *B.A., Columbia, 1967; M.D., Johns Hopkins, 1970*
Ruth E. Benesch. *B.Sc., London, 1946; Ph.D., Northwestern, 1951*
Kathryn L. Calame. (also Microbiology). *B.S., Missouri, 1962; M.S., George Washington, 1965; Ph.D., 1975*
Kurt Drickamer. *B.S., Stanford, 1973; Ph.D., Harvard, 1978*
Philip Feigelson. *B.S., Queens, 1947; Ph.D., Wisconsin, 1951*
Stephen P. Goff (Eugene Higgins Professor) (also Microbiology). *B.A., Amherst, 1973; Ph.D., Stanford, 1978*

Robert F. Goldberger. *M.D., New York University, 1958*
Maxwell Gottesman (Charles H. Revson Professor) (also Microbiology) (in the Institute of Cancer Research). *M.D., Yale, 1960; Ph.D., 1965*
Wayne Hendrickson. *B.A., Wisconsin, 1963; Ph.D., Johns Hopkins, 1968*
Barry Honig. *B.S., Polytechnic Institute of Brooklyn, 1963; M.A., Johns Hopkins, 1964; Ph.D., Weizmann Institute (Israel), 1968*
Thomas Jessell (in the Center for Neurobiology & Behavior). *B. Pharm., London, 1973; Ph.D., Cambridge, 1974*
Arthur Karlin (Eugene Higgins Professor of Neurology) (also Neurology and Physiology & Cellular Biophysics). *B.A., Swarthmore, 1957; Ph.D., Rockefeller, 1962*
Alvin I. Krasna. *B.A., Yeshiva, 1950; Ph.D., Columbia, 1955*
Dinshaw Patel. *Ph.D., New York University, 1966*
Parithchery P. Srinivasan. *B.S., Madras, 1946; Ph.D., 1953*

Senior Research Scientist

Frederick W. Alt (also Microbiology). *B.S., Brandeis, 1971; Ph.D., Stanford, 1978*

Associate Professors

Allen M. Gold. *B.A., Chicago, 1950; Ph.D., Harvard, 1955*
Iva S. Greenwald. *B.S., Cornell, 1977; Ph.D., Massachusetts Institute of Technology, 1982*

Adjunct Associate Professors

Mitchell Goldfarb. *Ph.D., Massachusetts Institute of Technology, 1979*
John D. Karkas. *Ph.D., Columbia, 1962*

Research Scientists

Philip E. Bourne. *B.S., Flinders (Australia), 1974*
Stuart G. Fischer. *B.S., Chicago, 1965; M.Ed., Columbia, 1967; Ph.D., Princeton, 1977*
Eftihia Tzilianos. *Ph.D., Witwatersrand (South Africa), 1972*

Assistant Professors

Aneel K. Aggarwal. *B.S., Kings College (London), 1981; Ph.D., 1984*
Richard K. Assoian (in the Center for Reproductive Sciences). *Ph.D., Chicago, 1981*
Richard S. Mann (in the Center for Reproductive Sciences). *B.S., Cornell, 1980; Ph.D., Massachusetts Institute of Technology, 1986*
Arthur G. Palmer. *B.A., Haverford, 1980; M.S., Michigan, 1986; Ph.D., North Carolina, 1989*
Anna Marie Pyle. *B.A., Princeton, 1985; Ph.D., Columbia, 1989*

Associate Research Scientists

Francis K. Athappilly. *B.S., Calicut (India), 1977; M.S., 1979*
Weider Chang. *B.S., Tunghai (Taiwan), 1983; M.S., Utah, 1987; Ph.D., Cornell, 1992*
Cynthia M. Czajkowski. *B.A., New York University, 1979; Ph.D., State University of New York (Downstate), 1987*
Richard A. Friedman. *B.A., New York University, 1971; M.S., 1974; Ph.D., 1977*
Nancy Greenbaum. *B.A., Pennsylvania, 1972; Ph.D., 1984*
John M. Hubbard. *B.S., California (Berkeley), 1983; Ph.D., 1989*
Daniel J. Leahy. *B.S., Yale, 1982; Ph.D., Stanford, 1988; M.D., 1989*
Anthony Nicholls. *B.A., Oxford, 1982; Ph.D., Florida, 1988*
Ilya N. Shindyalov. *M.S., Novosibirsk (Russia), 1982; Ph.D., Siberian (Russia), 1988*
David A. Stauffer. *B.S.,M.S., Pennsylvania, 1983; Ph.D., California Institute of Technology, 1989*
An-Suei Yang. *B.S., National Tsing Hua (Taiwan), M.S., Johns Hopkins, 1985; Ph.D., 1986*

SPECIAL LECTURERS

Erwin Chargaff, Ph.D.
Isidore S. Edelman, Ph.D.
Max A. Eisenberg, Ph.D.
Dezider Grunberger, Ph.D.
Seymour Lieberman, Ph.D.
Barbara W. Low, D.Phil.
Maurice M. Rapport, Ph.D.
David B. Sprinson, Ph.D.

Dermatology

Clinical Professor and Acting Chairman

Robert R. Walther. *B.A., Cornell, 1969; M.D., North Carolina, 1973*

At Presbyterian Hospital

Professor

Leonard C. Harber (Richard & Mildred Rhodebeck Professor) (also Public Health) (Environmental Health Sciences). *B.A., Johns Hopkins, 1949; M.D., New York University, 1953*

Professor of Clinical Dermatology

Richard Scher. *B.A., New York University, 1949; M.A., Brooklyn, 1951; M.D., Howard, 1955; M.S., New York University, 1960; M.A., Brown, 1984*

Clinical Professors

Marc E. Grossman. *B.A., State University of New York (Buffalo), 1970; M.D., Pennsylvania, 1975*
Saul L. Sanders. *B.A., Kenyon, 1950; M.D., Cornell, 1952*
David N. Silvers (also Pathology). *B.A., Haverford, 1964; M.D., Duke, 1968*

Associate Professor of Clinical Dermatology

Carole Louise Berger (also Pathology). *B.S., College of the City of New York, 1966; M.A., Columbia, 1971; M.S., 1975; Ed.D., 1976; Ph.D., 1984*

Associate Clinical Professors

Robert B. Armstrong. *B.A., Haverford, 1969; M.D., Columbia, 1973*
Jack Eisert. *B.A., Cornell, 1952; M.D., State University of New York (Downstate), 1956*
Yehuda D. Eliezri. *B.A., Brooklyn, 1966; M.S., Yeshiva, 1971; M.D., Western Ontario, 1976*
Richard A. Walzer. *B.A., Harvard, 1952; M.D., Columbia, 1956*
Gregory L. Zalar. *B.S., George Washington, 1965; M.D., 1969*

Assistant Professors

Vincent De Leo (George Henry Fox Assistant Professor). *B.S., Louisiana State, 1965; M.D., 1969*
Janet H. Prystowsky (Herbert Irving Assistant Professor). *B.S., Pennsylvania State, 1974; M.S., Columbia, 1975; Ph.D., 1979; M.D., Chicago, 1983*

Assistant Professor of Public Health

Mary S. Matsui (Environmental Health Sciences). *B.A., Knox, 1973; M.S., Drexel, 1979; Ph.D., Columbia, 1986*

Assistant Clinical Professors

Irving Abrahams. *B.A., New York University, 1948; M.D., State University of New York (Downstate), 1954*
Alan D. Andrews. *B.S., Illinois, 1968; M.D., Virginia, 1972*
William G. Atwood. *A.B., Harvard, 1954; M.D., Columbia, 1958*
Vincent S. Beltrani. *B.A., Brooklyn, 1953; M.D., Columbia, 1957*
Leon K. Demar. *B.A., Haverford, 1967; M.D., New York University, 1973*
Robert P. Feinstein. *M.D., New York University, 1967*
Anthony N. Gregory. *B.A., Davidson, 1974; M.P.H., Chapel Hill, 1977; M.D., 1984*
Eric W. Herman. *B.A., State University of New York (Buffalo), 1972; M.D., Mt. Sinai, 1976*
Cheryl S. Hutt. *B.A., Barnard, 1974; M.D., Columbia, 1978*
Bruce Elliot Katz. *B.S., McGill, 1973; M.D., 1977*
Jeffrey S. Kezis. *M.D., Hahnemann, 1970*
Elizabeth H. Knobler. *B.A., Skidmore, 1972; M.P.H., Columbia, 1974; M.D., State University of New York (Stonybrook), 1984*
Asher D. Rabinowitz. *B.A., Yeshiva, 1970; M.D., George Washington, 1974*
Jack H. Rozen. *B.S., Pittsburgh, 1958; M.D., 1962*
Paul Ira Schneiderman. *B.S., Wisconsin, 1967; M.D., State University of New York (Syracuse), 1971*
Robert S. Seibt. *B.A., St. Olaf, 1971; M.D., Minnesota, 1978*
Eugene W. Sweeney. *B.S., Manhattan, 1956; M.D., New York Medical College, 1960*
Arnold Charles Toback. *B.A., M.D., Boston, 1980*
Harvey I. Weinberg. *B.A., Brooklyn, 1965; M.D., State University of New York (Buffalo), 1969*

Assistant Clinical Professor of Psychiatry

Iona H. Ginsburg (in Dermatology). *B.A., Vassar, 1953; M.D., Columbia, 1957*

Associate Research Scientist

Betty Kong. *B.S., Columbia, 1972; Ph.D., State University of New York (Downstate), 1978*

SPECIAL LECTURERS

Margarita Hutner, M.D.
Einar A. Juhlin, M.D.

LECTURERS

Richard L. Edelson, M.D.
Robert Knobler, M.D.
Steven R. Kohn, M.D.

ASSOCIATES IN CLINICAL DERMATOLOGY

Laila M. Almeida, M.D.
Rhonda Koenig Berkowitz, M.D.
Robert Michael Bernstein, M.D.
Alice C. Cardullo, M.D.
Timothy J. Corey, M.D.
William J. Cunningham, M.D.
Danielle E. Engler, M.D.
Charles L. Halasz, M.D.
Ruth Kaplan-Treiber, M.D.
Elizabeth Konecky, M.D.
Joseph A. Penner, M.D.
Deborah A. Wiener Rabner, M.D.
Margaret S. Ravits, M.D.
Daniel M. Rosenthal, M.D.
Jeffrey Alan Sklar, M.D.
Luis S. Suarez, M.D.
Jo-Ann Szylit, M.D.

INSTRUCTORS IN CLINICAL DERMATOLOGY

Johanna Baeuerle, M.D.
David E. Bank, M.D.
Vincent P. Beltrani, M.D.
Philip Bruder, M.D.
Annette A. Cohen, M.D.
Mary C. Cole, M.D.
Melanie Grossman, M.D.
Wendy E. Livingston, M.D.
Barbara L. Lukash, M.D.
Michael A. Mann, M.D.
Martha J. Maso, M.D.
Sheryl R. Miller, M.D.
Amy Elaine Newburger, M.D.
Barry M. Pomerantz, M.D.
Mitchell J. Ross, M.D.
Karin H. Satra, M.D.
James M. Spencer, M.D.
Jeffrey H. Sturza, M.D.
Michael J. Yunakov, M.D.

At Mary Imogene Bassett Hospital

Assistant Clinical Professor

William W. Stocker (also Medicine). *A.B., Harvard, 1966; M.D., Case Western Reserve, 1970*

At Morristown Memorial Hospital

Associate Clinical Professor

Emil Bisaccia (also Medicine). *B.A., Ohio State, 1974; M.D., Medical College of Ohio, 1979*

At St. Luke's-Roosevelt Hospital Center

Clinical Professor

Alexander W. Young, Jr. *B.S., Maryland, 1944; M.D., 1946*

Assistant Clinical Professors

William P. DiPietro. *B.S., Massachusetts Institute of Technology, 1972; M.D., Georgetown, 1976*
Herbert A. Hochman. *B.A., Columbia, 1966; M.D., Tulane, 1970*
Peter C. Lombardo. *B.S., Rochester, 1955; M.D., Albany, 1959*
David Sibulkin. *B.A., New York University, 1962; M.D., 1966*

ASSOCIATE IN CLINICAL DERMATOLOGY

Stanley J. Lewis, M.D.

Genetics and Development

Eugene Higgins Professor and Acting Chairman

Argiris Efstratiadis. *Dr. Med. Sc., Athens (Greece), 1971; M.D., 1966; Ph.D., Harvard, 1976*

Professors

Arthur Bank (also Medicine). *B.A., Columbia, 1956; M.D., 1960*
Marian B. Carlson (also Microbiology) (in the Institute of Cancer Research). *B.A., Radcliffe, 1973; Ph.D., Stanford, 1978*
Franklin D. Costantini. *B.S., Yale, 1974; Ph.D., California Institute of Technology, 1980*
Riccardo Dalla-Favera (Percy and Joanne Uris Professor) (also Pathology). *M.D., Milan (Italy), 1976*

Georgiana Jagiello (also Virgil G. Damon Professor of Obstetrics & Gynecology) (in the Center for Reproductive Sciences). *B.A., Boston, 1949; M.D., Tufts, 1955*
Jurg Ott (in Psychiatry). *Ph.D., Zurich, 1967; M.S., Washington, 1972*
I. Bernard Weinstein (also Frode Jensen Professor of Medicine) (also Public Health) (in the Comprehensive Cancer Center). *B.S., Wisconsin, 1951; M.D., 1955*

Adjunct Professors

Andrew P. McMahon (also Biological Sciences). *Ph.D., London, 1981*
Michael H. Wigler. *B.A., Princeton, 1970; M.S., Rutgers, 1972; Ph.D., Columbia, 1978*

Professor of Clinical Genetics & Development

Dorothy Warburton (in Pediatrics). *B.S., McGill, 1957; Ph.D., 1961*

Professors of Clinical Psychiatry

L. Erlenmeyer-Kimling. *B.S., Columbia, 1957; Ph.D., 1960*
John D. Rainer. *B.A., Columbia, 1941; M.A., 1944; M.D., 1951*

Associate Professors

T. Conrad Gilliam (in Psychiatry). *Ph.D., Missouri, 1981*
Rodney J. Rothstein. *B.S., Illinois, 1969; Ph.D., Chicago, 1975*
Eric A. Schon (in Neurology). *B.S., Columbia, 1968; M.S., Cincinnati, 1973; Ph.D., 1982*
Gary Struhl (in the Center for Neurobiology & Behavior). *B.S., Massachusetts Institute of Technology, 1976; M.S., 1976; Ph.D., Cambridge, 1980*
Debra Wolgemuth (in Obstetrics & Gynecology and the Center for Reproductive Sciences). *B.A., Gettysburg, 1969; M.A., Vanderbilt, 1971; M.Phil., Columbia, 1975; Ph.D., 1977*

Adjunct Associate Professor

Leonardus Van der Ploeg. *B.S., Amsterdam, 1980; Ph.D., 1984*

Research Scientist

James J. Russo. *B.S., St. John's, 1974; M.S., New York University, 1977; Ph.D., 1981*

Assistant Professors

Maggi Allan (in Medicine). *B.A., Stirling (Scotland), 1975; Ph.D., Glasgow, 1979*
Andrew Tomlinson (in the Center for Neurobiology & Behavior). *B.A., Manchester (England), 1979; Ph.D., Open University (Milton Keynes, England), 1983*

Associate Research Scientists

Nancy J. Axelrod. *B.A., Swarthmore, 1966; M.S., Harvard, 1969; Ph.D., 1974*
Harlow K. Fischman. *B.A., Brooklyn, 1955; M.S., Arkansas, 1960; Ph.D., New York University, 1968*
Pierre C. Jelenc. *M.S., Paris, 1970; Ph.D., Columbia, 1977*
Ming Tsung Yu. *B.S., Tunghai (China), 1959; Ph.D., Illinois, 1969*
Peisen Zhang. *M.S., Academia Sinica (Beijing), 1981; Ph.D., Rutgers, 1989; M.S., 1990*

Adjunct Associate Research Scientist

Doris Bo-shan Tse. *A.B., Vassar, 1972; M.A., Columbia, 1981; Ph.D., 1985*

Medicine

Samuel Bard Professor and Chairman

Myron L. Weisfeldt. *B.A., Johns Hopkins, 1962; M.D., 1965*

At Presbyterian Hospital

Professors

Qais Al-Awqati (Robert F. Loeb Professor) (also Physiology & Cellular Biophysics). *M.B.,Ch.B., Baghdad, 1962*
Arthur Bank (also Genetics & Development). *B.A., Columbia, 1956; M.D., Harvard, 1960*
J. Thomas Bigger (also Pharmacology). *B.A., Emory, 1955; M.D., Georgia, 1960*
John P. Bilezikian (also Pharmacology). *A.B., Harvard, 1965; M.D., Columbia, 1969*
Vincent P. Butler, Jr. *A.B., St. Peter's, 1949; M.D., Columbia, 1954*
Peter R. B. Caldwell. *A.B., Dartmouth, 1954; M.D., Harvard, 1958*
Robert E. Canfield (Herbert and Florence Irving Professor) (in the Irving Center for Clinical Research). *B.S., Lehigh, 1952; M.D., Rochester, 1957*
Paul J. Cannon (Harold Ames Hatch Professor). *B.A., Holy Cross, 1954; M.D., Harvard, 1958*
Leonard Chess. *B.S., Massachusetts Institute of Technology, 1964; M.D., State University of New York (Downstate), 1968*
Michael Field (also Physiology & Cellular Biophysics). *B.A., Chicago, 1953; M.D., Boston, 1959*
Andrew G. Frantz. *A.B., Harvard, 1951; M.D., Columbia, 1955*
Henry N. Ginsberg. *B.A., Brooklyn, 1966; M.D., State University of New York (Downstate), 1970*
John Lindenbaum. *B.A., Cornell, 1954; M.D., Harvard, 1959*
John N. Loeb. *A.B., Harvard, 1957; M.D., 1961*
Harold C. Neu (also Pharmacology). *B.A., Creighton, 1956; M.D., Johns Hopkins, 1960*
Milton Packer. *B.S., Pennsylvania State, 1969; M.D., Jefferson, 1973*
Benvenuto Pernis (also Microbiology). *M.D., Milan, 1947*
Alan R. Tall. *M.B.,B.S., Sydney (Australia), 1970*
Donald F. Tapley (Alumni Professor). *B.S., Acadia, 1948; M.D., Chicago, 1952*
Gerald E. Thomson (Samuel W. Lambert Professor). *B.S., Queens, 1955; M.D., Howard, 1959*
I. Bernard Weinstein (Frode Jensen Professor) (also Public Health and Genetics & Development) (in the Comprehensive Cancer Center). *B.S., Wisconsin, 1951; M.D., 1955*

Professor of Medical Informatics

Paul Clayton (also Radiology). *B.A., Utah, 1966; M.S., Arizona, 1969; Ph.D., 1973*

Professor of Social Medicine

David J. Rothman (Bernard Schoenberg Professor) (in the Center for the Study of Society and Medicine). *B.A., Columbia, 1958; M.A., Harvard, 1959; Ph.D., 1964*

Adjunct Professor

Robert I. Levy. *B.A., Cornell, 1957; M.D., Yale, 1961*

Professors of Clinical Medicine

Gerald B. Appel. *B.A., Cornell, 1968; M.D., Albert Einstein, 1972*
Ronald E. Drusin. *B.S., Union (Schenectady), 1962; M.D., Columbia, 1966*

Yale Enson. *B.A., Columbia, 1948; M.D., State University of New York (Downstate), 1953*
Glenda J. Garvey. *B.A., Wellesley, 1964; M.D., Columbia, 1969*
Elsa-Grace V. Giardina. *B.A., Bryn Mawr, 1961; M.D., New York Medical College, 1965*
Donald A. Holub. *B.A., Columbia, 1949; M.D., 1952*
Faramarz Ismail-Beigi. *B.A., Berea, 1962; M.D., Johns Hopkins, 1966; Ph.D., California (San Francisco), 1971*
Thomas P. Jacobs. *B.A., Amherst, 1964; M.D., Johns Hopkins, 1968*
Israeli A. Jaffe. *B.S., New York University, 1947; M.D., Columbia, 1950*
Edgar Leifer. *B.S., College of the City of New York, 1937; M.A., Columbia, 1939; Ph.D., 1941; M.D., 1946*
Thomas Q. Morris. *B.S., Notre Dame, 1954; M.D., Columbia, 1958*
Jane H. Morse. *B.A., Smith, 1951; M.D., Columbia, 1955*
James A. Reiffel. *B.A., Duke, 1965; M.D., Columbia, 1969*
Robert F. Reiss (also Pathology). *B.A., State University of New York (Syracuse), 1959; M.D., Bologna (Italy), 1965*
Ethel S. Siris. *B.A., Radcliffe, 1967; M.D., Columbia, 1971*
Joseph G. Sweeting. *B.S., Holy Cross, 1951; M.D., Columbia, 1956*
Robert N. Taub. *B.A., Yeshiva, 1957; M.D., Yale, 1961; Ph.D., London, 1969*
Robert T. Whitlock. *B.A., North Carolina, 1950; M.D., 1957*
Alan Yagoda. *B.A., Vermont (Burlington), 1956; M.D., 1963*

Clinical Professors

Ralph S. Blume. *B.A., Amherst, 1960; M.D., Columbia, 1964*
John R. Edsall. *B.A., Cambridge, 1945; M.B.,Ch.B., 1948*
William T. Friedewald (also Public Health) (Epidemiology). *B.S., Notre Dame, 1959; M.D., Yale, 1963*
Lionel Grossbard. *B.A., Columbia, 1957; M.D., 1961*
Charles J. Homcy. *A.B., Johns Hopkins, 1970; M.D., 1973*
Abbie I. Knowlton. *B.A., Bryn Mawr, 1938; M.D., Columbia, 1942*
William P. Lovejoy. *B.A., Yale, 1956; M.D., Columbia, 1962*
David J. McConnell. *M.D., Yale, 1973*
Jay I. Meltzer. *B.A., Princeton, 1949; M.D., Columbia, 1953*
Hans W. Neuberg. *B.A., Wagner, 1941; M.D., Columbia, 1950*
Robert H. Palmer. *B.A., Oberlin, 1953; M.D., Harvard, 1957*
Allan Schwartz. *B.S., College of the City of New York, 1967; M.S., Harvard, 1968; M.D., Columbia, 1974*
Richard J. Stock. *B.S., Yale, 1944; M.D., Columbia, 1947*
John A. Wood. *A.B., Harvard, 1943; M.D., 1946*

Senior Research Scientist

Steven Birken. *Ph.D., St. John's (New York), 1972*

Associate Professors

Leslie Baer. *B.A., Wisconsin, 1959; M.D., Columbia, 1963*
Ira Jay Goldberg. *B.S., Massachusetts Institute of Technology, 1971; M.D., Harvard, 1975*
Ira A. Tabas (also Anatomy & Cell Biology). *B.S., Tufts, 1975; M.D., Ph.D., Washington (St. Louis), 1977*
Sharon L. Wardlaw. *B.S., Cornell, 1970; M.D., 1975*

Associate Professor of Occupational Medicine

Paul W. Brandt-Rauf (in Public Health) (Environmental Health Sciences). *B.S., Columbia, 1970; M.S., 1973; Sc.D., 1974; M.D., 1979; M.P.H., 1980*

Associate Professors of Clinical Medicine

Conrad B. Blum. *B.S., Northwestern, 1969; M.D., 1971*
Herbert S. Chase, Jr. *B.A., Brown, 1970; M.D., Mt. Sinai, 1974*
Randolph P. Cole. *B.Ch.E., Manhattan, 1968; M.D., State University of New York (Downstate), 1973*
Janna C. Collins (also Pediatrics). *B.A., Radcliffe, 1965; M.D., New York University, 1972*
James Coromilas. *B.S., Columbia, 1969; M.D., McGill, 1975*
Jay Franklin Dobkin. *B.A., Columbia, 1968; B.M.S., Dartmouth, 1970; M.D., Harvard, 1972*
Dorothy Estes. *A.B., Wheaton (Massachusetts), 1946; M.D., Columbia, 1950*
Peter H. R. Green. *M.B.,B.S., Sydney, 1970; M.D., 1979*
Alan D. Guerci. *A.B., Harvard, 1972; M.D., Cornell, 1976*
Robert H. Heissenbuttel. *B.A., Thiel, 1959; M.D., Columbia, 1963*
Wylie C. Hembree, III (also Obstetrics & Gynecology). *B.A., Vanderbilt, 1960; M.D., Washington (St. Louis), 1964*
Kung-Ming Jan. *M.B., National Taiwan, 1967; Ph.D., Columbia, 1971*
J. Gregory Mears. *B.S., Trinity (Connecticut), 1969; M.D., Columbia, 1973*
George W. Melcher, Jr. *B.A., Colorado, 1943; M.D., Columbia, 1946*
Alfred I. Neugut (also Public Health) (Epidemiology). *B.A., Columbia, 1972; M.D.,Ph.D., 1977*
Juan A. Oliver. *Bachiller, Instituto Menendez (Spain), 1961; M.D., Barcelona, 1967*
Martin W. Oster. *B.A., Columbia, 1967; M.D., 1971*
Brian Scully. *B.A., Trinity (Dublin), 1969; M.B., 1971*
Elizabeth Shane. *B.S., Dalhousie, 1969; M.D., Toronto, 1975*
Steven J. C. Shea (also Public Health) (Epidemiology). *A.B., Harvard, 1968; M.D., Columbia, 1979*
Susan F. Steinberg (in Pharmacology). *B.S., Massachusetts Institute of Technology, 1972; M.D., Harvard, 1976*
Charles Weissman (also Anesthesiology). *B.A., Yeshiva, 1972; M.D., State University of New York (Downstate), 1976*
Francis M. Weld. *A.B., Harvard, 1961; M.D., Columbia, 1965*

Associate Professor of Clinical Psychiatry

Jerry Finkel. *B.A., Columbia, 1957; M.D., 1961*

Associate Clinical Professors

David K. Blood. *B.A., Amherst, 1962; M.D., Columbia, 1966*
John O. Burris. *B.S., Wyoming, 1952; M.D., Rochester, 1956*
L. David Carmichael (also Public Health) (Epidemiology). *A.B., Harvard, 1969; M.D., Albert Einstein, 1976*
Michael H. Cohen. *B.A., Johns Hopkins, 1961; M.D., 1965*
Oliver T. Fein (also Public Health) (Health Policy and Management). *B.A., Swarthmore, 1962; M.D., Case Western Reserve, 1967*
Kenneth C. Fine. *M.D., Catholic (Louvain, Belgium), 1970*
Thomas J. Garrett. *M.D., Queen's (Canada), 1971*
Jerry I. Gliklich. *B.A., Columbia, 1969; M.D., 1975*
Richard M. Grose. *A.B., Brown, 1970; M.D., Albert Einstein, 1974*
George A. Hyman. *B.A., Columbia, 1942; M.D., 1945*
Rafael A. Lantigua. *M.D., Autonomous (Santo Domingo), 1972*
Oscar Lebwohl. *A.B., Dartmouth, 1968; M.D., Harvard, 1972*
Robert M. Lewy (also Public Health) (Environmental Health Sciences). *B.A., Rochester, 1967; M.D., College of Medicine and Dentistry of New Jersey, 1971*
Frank S. Livelli. *B.A., Columbia, 1972; M.D., Harvard, 1976*
Arthur M. Magun. *B.A., Haverford, 1972; M.D., Mt. Sinai, 1977*
Aaron N. Manson. *B.A., Pennsylvania, 1972; M.D., 1976*

Eric R. Marcus (also Psychiatry). *B.A., Columbia, 1965; M.D., Wisconsin, 1969*
Roger A. Maxfield. *B.A., Brown, 1974; M.D., 1977*
George H. McCormack, Jr. *B.S., Holy Cross, 1945; M.D., Columbia 1949*
Carmen I. Ortiz-Neu. *B.A., Wellesley, 1959; M.D., Columbia, 1963*
Constance M. Park. *B.A., Radcliffe, 1964; M.S., Harvard, 1967; M.D., Albert Einstein, 1974*
Michael F. Parry. *B.A., Yale, 1966; M.D., Columbia, 1970*
Kenneth M. Prager. *B.A., Columbia, 1964; M.D., Harvard, 1968.*
Barrie Lynn Raik. *B.A., Harpur, 1967; M.D., New York University, 1977*
Peter L. Salgo (also Anesthesiology). *B.A., Columbia, 1971; M.D., 1975*
Harvey A. Schneier. *B.A., Columbia, 1963; M.D., 1967*
Eve E. Slater. *B.A., Vassar, 1967; M.D., Columbia, 1971*
Jeffrey A. Stein. *A.B., Harvard, 1960; M.D., 1965*
Joseph Tenenbaum. *B.A., Brandeis, 1968; M.D., Harvard, 1974.*
Byron M. Thomashow. *B.A., Columbia, 1970; M.D., 1974*
Cornelius J. Tyson. *B.A., Princeton, 1939; M.D., Columbia, 1943*
Gail S. Williams. *B.A., Wellesley, 1964; M.D., Columbia, 1968*
Chun Keung Yip. *B.S., St. Francis College, 1972; M.D., Albert Einstein, 1976*

Associate Clinical Professor of Pathology

Phyllis Della-Latta (in Medicine). *B.S., St. John's, 1964; M.S., 1966; Ph.D., New York University, 1978*

Research Scientist

Joyce W. Lustbader. *B.S., Rutgers, 1977; M.S., 1978; M. Phil, 1980; Ph.D., 1982*

Assistant Professors

Myles Akabas (also Physiology & Cellular Biophysics) (in the Center for Molecular Recognition). *B.A., Cornell, 1977; M.D., Albert Einstein, 1982*
Ned S. Braunstein. *B.S., Northwestern, 1978; M.D., 1980*
Daniel Burkhoff. *B.S., Cornell, 1979; Ph.D., Johns Hopkins, 1985; M.D., 1987*
James J. Cimino. *B.S., Brown, 1977; M.D., New York Medical College, 1981*
Nadim E. Cortas. *B.S., American University of Beirut, 1963; M.D., 1967*
Robin S. Goland. *B.A., Radcliffe, 1976; M.D., Columbia, 1980*
Steven M. Greenberg. *A.B., Harvard, 1978; M.D., Columbia, 1982*
Charles S. Hesdorffer. *M.B.,Ch.B., Witwatersrand (South Africa), 1978*
Evelyn Horn. *B.A., Brown, 1976; M.D., Mt. Sinai, 1980*
Yoshihiro Ishikawa (also Pharmacology). *M.D., Yokohoma City University, 1984*
Jose Katz (also Radiology). *B.S., Illinois, 1963; M.S., 1964; Ph.D., 1967; M.D., Berlin, 1980*
Stuart D. Katz. *B.S., Yale, 1979; M.D., State University of New York (Downstate), 1983*
Seth Lederman. *A.B., Princeton, 1979; M.D., Columbia, 1983*
Howard R. Levin. *B.A., Johns Hopkins, 1980; M.S., Rutgers, 1982; M.D., Mt. Sinai, 1986*
Beth C. Levine. *B.A., Brown, 1981; M.D., Cornell, 1986*
Israel Lowy. *B.A., Princeton, 1977; Ph.D., 1982; M.D. Columbia, 1984*
Stephen A. Morris. *B.S., Pennsylvania 1971; M.D., Ph.D., Albert Einstein, 1978*
Lynne M. Quittell (also Pediatrics). *B.A., Hampshire, 1975; M.D., Tel Aviv, 1981*
Paul B. Rothman (also Microbiology). *S.B., Massachusetts Institute of Technology, 1980; M.D., Yale, 1984*
Christian W. Schindler. *B.A., Pennsylvania, 1978; M.D., Ph.D., New York University, 1985*
Shonni Silverberg (Irving Assistant Professor). *B.A., Wesleyan, 1976; M.D., Cornell, 1980*
Cy Aaron Stein (also Pharmacology). *B.A., Brown, 1974; Ph.D., Stanford, 1978; M.D., Albert Einstein, 1982*
Judah Z. Weinberger (also Pharmacology). *B.A., Columbia 1974; M.A., 1975; M.D., Ph.D., Harvard, 1980*

Assistant Professor of Genetics & Development

Maggi Allan. *B.A., Stirling (Scotland), 1975; Ph.D., Glasgow (Scotland), 1979*

Assistant Professors of Medical Informatics

George Hripcsak. *B.S., Haverford, 1981; M.D., Columbia, 1985*
Stephen B. Johnson. *B.A., McGill (Canada), 1982; M.S., New York University, 1984; Ph.D., 1987*

Assistant Professors of Social Medicine

Sherry I. Brandt-Rauf (in the Center for the Study of Society & Medicine). *M. Phil, Columbia, 1978; J.D., 1981*
Stephen Hilgartner (in the Center for the Study of Society & Medicine). *B.A., Cornell, 1983; M.A., Pennsylvania, 1984; Ph.D., Cornell, 1987*

Adjunct Assistant Professors

William T. Close. *M.D., Columbia, 1951*
Paul J. Maddon. *B.A., Columbia, 1981; M.D., Ph.D., 1988*
Scott J. Mellis. *A.B., Johns Hopkins, 1977; M.D., Ph.D., Washington (St. Louis), 1984*
Ariel Pablos-Mendez. *M.D., Guadalajara (Mexico), 1985; M.P.H., Columbia, 1992*

Adjunct Assistant Professor of Medical Informatics

Carol Friedman (in Medicine). *B.S., College of the City of New York, 1962; M.S., New York University, 1986; Ph.D., 1989*

Assistant Professors of Clinical Medicine

Mark Apfelbaum. *B.A., Yeshiva, 1977; M.D., Columbia, 1981*
Terri F. Apfelbaum. *B.A., Barnard, 1976; M.D., Columbia, 1980*
Rohit R. Arora. *B.S., Institute of Science (Bombay), 1972; M.D., Topiwalla National (India), 1976*
Andrew D. Berke. *B.S., Brown, 1976; M.D., 1979*
David A. Brogno. *B.S., Michigan, 1981; M.D., 1983*
Gary R. Burke. *B.A., St. Mary's, 1969; M.D., Minnesota, 1973*
Richard S. Cantor. *B.A., Rochester, 1974; M.D., Columbia, 1978*
Rita A. M. Charon. *B.A., Bensalem, 1970; M.D., Harvard, 1978*
David J. Cohen. *B.A., Michigan, 1970; M.D., New York University, 1972*
Jerome A. Cooper. *B.A., New York University, 1957; M.D., State University of New York (Downstate), 1961*
Steven J. Corwin. *B.S., Northwestern, 1977; M.D., 1979*
Felicia Cosman. *B.A., Cornell, 1979; M.D., State University of New York (Stony Brook), 1983*
Robert H. DeBellis. *B.S., Queens (New York), 1951; M.D., Columbia, 1958*
Marco Di Tullio. *M.D., Milan (Italy), 1980*
David L. Diuguid. *A.B., Harvard, 1975; M.D., Cornell, 1979*
Stanley Epstein. *B.A., Brooklyn, 1954; M.D., Chicago, 1958*
Mitchell H. Fishbach. *B.S., State University of New York (Binghamton), 1973; M.D., Albert Einstein, 1977*
Michael J. Flamm. *B.S., Yale, 1976; M.D., Ph.D., Columbia, 1983*
Gary S. Gabelman. *B.S., College of the City of New York, 1983; M.D., Mt. Sinai, 1985*
Bernard Gitler. *B.S., Massachusetts Institute of Technology, 1972; M.D., Cornell, 1976*
Aasha S. Gopal. *A.B., Barnard, 1979; S.M., Massachusetts Institute of Technology, 1981; M.D., Columbia, 1985*

Keith M. Gottesdiener. *A.B., Harvard, 1977; M.D., Pennsylvania, 1982*
Marc D. Grodman. *B.A., Pennsylvania, 1973; M.D., Columbia, 1977; M.P.H., Harvard, 1982*
Rebecca T. Hahn. *A.B., Harvard, 1980; M.D., Washington, 1984*
David M. Hodges. *B.S., College of the City of New York, 1981; M.D., New York University, 1984; M.Sc., Harvard, 1989*
Shunichi Homma. *A.B., Dartmouth, 1977; M.D., Albert Einstein, 1981*
Ada J. Huang. *B.A., Missouri, 1978; M.D., 1981*
Oscar H. Irigoyen. *B.S., Military Lyceum, 1965; M.D., Buenos Aires, 1971*
Michael N. Johnson. *M.D., Chicago, 1982*
Theodore N. Keltz. *B.S., Rensselaer Polytechnic Institute, 1976; M.D., Union (Albany, New York), 1980*
Brian B. Kiss. *B.S., Utica, 1980; M.D., Albert Einstein, 1984*
Cheryl L. Kunis. *M.D., Albert Einstein, 1975*
Jonathan D. LaPook. *B.S., Yale, 1975; M.D., Columbia, 1980*
Donald William Landry. *B.S., Lafayette, 1975; Ph.D., Harvard, 1979; M.D., Columbia, 1983*
Benjamin H. Lewis. *B.A., California (Berkeley), 1973; M.D., California (San Francisco), 1977*
Suzanne M. Lewis. *B.S., State University of New York (Albany), 1976; M.D., Albert Einstein, 1985*
Susan L. Lucak. *B.A., Barnard, 1977; M.D., Albert Einstein, 1981*
David D. Markowitz. *B.S., Swarthmore, 1981; M.D., Columbia, 1985*
Robert J. McConnell. *B.A., Hamilton, 1969; M.D., Columbia, 1973*
Carlton C. McGregor. *B.S., Fordham, 1976; M.D., Harvard, 1980*
Anthony D. Mercando. *B.S., Manhattan, 1976; M.D., Harvard, 1980*
Frances J. Meyer. *B.A., Amherst, 1980; M.D., State University of New York (Downstate), 1985*
Ellen A. Morrison. *B.A., Olivet Nazarene (Illinios), 1979; M.D., Washington, 1984*
Alan J. Moskowitz. *B.A., Vermont, 1974; M.D., New York Medical College, 1978*
Robin O. Motz. *B.A., Columbia, 1959; Ph.D., 1965; M.D., 1975*
Michael J. Muschel. *B.S., Yeshiva, 1977; M.D., Columbia, 1981*
Gerald W. Neuberg. *B.A., Princeton, 1979; M.D., Columbia, 1983*
Frederick V. Newsome. *A.B., Harvard, 1968; M.D., West Virginia, 1972*
George A. Petrossian. *B.A., Johns Hopkins, 1979; M.D., Mt. Sinai, 1983*
Daniel P. Petrylak. *B.A., Columbia, 1981; M.D., Case Western Reserve, 1985*
Marshall P. Primack. *B.A., Louisville, 1961; M.D., Johns Hopkins, 1965*
Dennis S. Reison. *B.S., Yale, 1971; M.D., Stanford, 1975*
Roxanne A. Rodney. *B.A., Hunter, 1981; M.D., Cornell, 1985*
John L. Roglieri. *B.A., B.S., Lehigh, 1960; M.D., Harvard, 1966*
Mario F. Romagnoli. *B.S., Fordham, 1972; M.D., Columbia, 1976*
Marlon S. Rosenbaum (also Pediatrics). *B.A., Vassar, 1976; M.D., New York University, 1980*
Richard L. Roth. *B.S., Massachusetts Institute of Technology, 1971; M.D., Yale, 1975*
Moshe Rubin. *B.A., Queens, 1979; M.D., Yale, 1983*
David I. Sahar. *B.A., Columbia, 1975; M.D., 1980*
Lewis P. Schneider. *B.A., Queens, 1974; M.D., State University of New York (Downstate), 1978*
Stanley J. Schneller. *B.A., New York University, 1973; M.D., Harvard, 1977*
Larry L. Schulman. *B.A., Cornell, 1974; M.D., State University of New York (Downstate), 1978*
Carol E. Semrad. *B.A., Wisconsin, 1978; M.D., Columbia, 1982*
Alan H. Seplowitz. *B.A., Columbia, 1968; M.D., 1972*
Janet M. Shapiro. *B.S., Yale, 1981; M.D., Columbia, 1985*
Eric H. Sherman. *B.A., Haverford, 1980; M.D., New York University, 1984; M.S., Stanford, 1990*
William H. Sherman. *B.S., Pennsylvania State, 1967; M.D., Jefferson, 1969*
Mark S. Silberman. *B.A., Washington, 1979; M.D., Northwestern, 1984*
Paul F. Simonelli. *A.B., Boston, 1974; M.S., Fairleigh Dickinson, 1977; Ph.D., Mt. Sinai, 1984; M.D., 1987*
Marjorie L. Slankard. *B.A., Missouri, 1967; M.D., 1971*

Leonard Stern. *B.A., City University of New York, 1972; M.D., New York Medical College, 1975*
Mark B. Stoopler. *B.S., Tulane, 1971; M.D., Cornell, 1974*
Anthony M. Valeri. *B.S., Polytechnic Institute of New York, 1977; M.D., State University of New York (Brooklyn), 1981*
Guy Valiquette. *B.A., Montreal, 1967; M.D., McGill, 1972*
Janet Van Adelsberg. *B.A., Princeton, 1977; M.D., Tufts, 1981*
Hal S. Wasserman. *B.A., Johns Hopkins, 1978; M.D., Columbia, 1982*
Christine C. Weart. *M.D., New York University, 1979*

Assistant Clinical Professors

Debrah B. Aronson. *B.A., City University of New York, 1979; M.D., Albert Einstein, 1983*
Alan R. Baskin. *B.A., New York University, 1960; M.D., 1964*
Alfred Becker. *B.A., Yeshiva, 1958; M.D., Albert Einstein, 1962*
Walter D. Berkowitz. *B.A., Columbia, 1958; M.D., State University of New York (Downstate), 1962*
Karen F. Brudney. *B.A., Yale, 1973; M.D., Columbia, 1980*
Manuel R. Cabrera. *B.S., College of the City of New York, 1978; M.D., Boston, 1982*
Maxwell M. Chait. *B.S., California, 1969; M.D., 1972*
Howard Chase. *B.A., Hunter, 1974; M.D., Yale, 1978*
Neville D. Clynes. *B.A., Colby, 1976; M.D., State University of New York (Stony Brook), 1983*
Alice J. Cohen. *B.A., Bryn Mawr, 1977; M.D., Chicago, 1981*
Audrey Compton. *B.S.N., Simmons (Boston), 1975; M.D., Tufts, 1982*
Anita C. Darmanian. *B.A., Barnard, 1977; M.D., State University of New York (Stony Brook), 1981*
Roberta L. Donin. *B.S., Long Island, 1980; M.D., Universidad of Autonoma de Guadalajara, 1980*
Juan G. Edreira. *M.D., Havana, 1951*
Juanita Evereteze. *M.D., State University of New York (Buffalo), 1979*
Seth D. Feltheimer. *B.A., Johns Hopkins, 1975; M.S., Wagner, 1977; M.D., Universidad de Navarra (Pamplona, Spain), 1981*
Kenneth Friedberg. *B.A., Temple, 1957; M.D., Hahneman, 1961*
Henry D. Gaines. *B.A., Columbia, 1970; M.D., Harvard, 1974*
William J. Heidenberg. *B.S., Brooklyn, 1956; M.D., Pittsburgh, 1960*
Anna L. Holness. *B.S., College of the City New York, 1982; M.D., State University of New York (Stony Brook), 1984*
Sherry D. Jackson. *B.S., Wayne State, 1964; M.A., Michigan, 1970; M.D., 1983*
Linda E. Jaffe. *B.A., State University of New York (Albany), 1977; M.D., North Carolina, 1984*
Eddy Jean-Baptiste. *M.D., College of Medicine (Haiti), 1974; Ph.D., New York University, 1990*
Minna S. Josef. *B.A., New York University, 1981; M.D., 1985*
Nancy Feiman Kahn. *B.A., Yale, 1976; M.D., Columbia, 1980*
Terri F. Katz. *B.S., Pennsylvania, 1979; M.D., George Washington, 1986*
Andrew M. Keller. *B.A., Ithaca, 1975; M.D., Ohio State, 1979*
Marjorie Louise King. *M.D., Pennsylvania, 1982*
Rima G. Kopelman. *A.B., Barnard, 1971; M.D., Columbia, 1977*
Bruce A. Kramer. *B.S., Stevens Institute of Technology (Hoboken, New Jersey), 1978; M.D., College of Medicine and Dentistry of New Jersey, 1985*
James E. Lacava. *B.S., Ohio, 1981; M.D., State University of New York (Syracuse), 1987*
Daniel L. Larson. *M.D., Columbia, 1946*
Arnold L. Lisio. *B.S., Rochester, 1956; M.D., 1961*
Henry S. Lodge, Jr. *B.A., Pennsylvania, 1981; M.D., Columbia, 1985*
Daniel L. Macken. *B.A., Holy Cross, 1955; M.D., Boston, 1960*
Jacob C. Melamed. *M.D., Munich Medical School (Germany), 1976*
Paul C. Mendelowitz. *A.B., Vassar, 1978; M.A., 1979; M.D., George Washington, 1983*

Jacques P. Merab. *B.S., Massachusetts Institute of Technology, 1976; M.D., Harvard, 1980*
Brenda J. Merritt. *B.A., Rochester, 1975; M.D., Albert Einstein, 1979*
Susan R. Morales. *A.B., Harvard, 1982; M.D., Columbia, 1986*
Lori J. Mosca. *B.A., Indiana, 1980; M.D., State University of New York (Syracuse), 1984; M.P.H., Columbia, 1992*
Kathrine G. Nickerson. *B.A., Yale, 1977; M.D., California (San Francisco), 1981*
Michael Perez. *B.A., College of the City of New York, 1977; University of Noreste (Tampico, Mexico), 1980*
John E. Postley, Jr. *B.A., Yale, 1964; M.D., Columbia, 1968*
Nicholas Rango. *B.S., St. Louis, 1966; M.D., Northwestern, 1970*
Gerald Ridge. *A.B., Harvard, 1970; M.D., California (San Francisco), 1979*
Howard C. Rothman. *B.A., Yeshiva, 1966; M.D., Cincinnati, 1970*
Robert B. Roven. *B.A., Columbia, 1953; M.D., 1957*
Mitchell J. Rubinoff. *B.A., Bethlehem, 1974; M.D., Mount Sinai, 1979*
Sharon E. Selinger. *B.A., Cornell, 1977; M.D., 1981*
Judith S. Simmons. *B.S., College of the City of New York, 1981; M.D., Mt. Sinai, 1983*
Arthur I. Snyder. *B.A., Columbia, 1946; M.D., 1950*
Rafael Soltren. *B.A., Amherst, 1977; M.D., Cornell, 1981*
Samuel Suede. *B.A., Brandeis, 1982; M.D., State University of New York (Downstate), 1986*
Nancy K. Terrell. *B.A., Goucher, 1976; M.D., Yale, 1983*
Jack F. Tohme. *B.Sc., American University (Beirut), 1970; M.D., 1974*
Philip R. Totonelly. *B.S., Syracuse, 1973; M.D., Universidad Mexico, 1977*
Peter C. Van Gronigen. *B.S., Long Island, 1972; M.D., Howard, 1976*
Jerome B. Zisfein. *B.A., Brandeis, 1976; M.D., New York Medical College, 1981*

Associate Research Scientists

Nai-Xun Chin. *M.D., Shanghai Second Medical College, 1961*
Lori R. Covey. *B.S., California (Riverside), 1977; Ph.D., Columbia, 1986*
Mary Ann Gawinowicz. *B.A., Douglass, 1974; Ph.D., Columbia, 1978*
Hong Luo. *M.S., Peking Union Medical College (China), 1986; M.D., West China, 1983*
Ildiko Radichevich. *M.A., Ukrainian Technological, 1948; Ph.D., Columbia, 1958*
Steven L. Roffman. *B.A., Queens (New York), 1965; M.S., New York University, 1968; Ph.D., 1973*
Robert R. Sciacca. *B.S., Columbia, 1971; M.S., 1974*
Pillarisetti Sivaram. *B.S., Andhra (Waltair, India), 1978; M.S., Hyderabad (India), 1980; Ph.D., 1986*
Joan L. Sobel. *B.S., City College of New York, 1965; M.S., City University of New York, 1970*
Stephen K. Sullivan. *B.A., Drury, 1983; Ph.D., Kansas, 1987*
Randle W. Ware. *B.S., Caltech, 1963; M.S., 1964; Ph.D., Massachusetts Institute of Technology, 1971; M.D., Yale, 1983*
Kang Zhao. *M.S., Columbia, 1984; Ph.D., 1988*

Adjunct Associate Research Scientist

Michele G. Greene. *M.A., State University of New York (Buffalo), 1974; Dr.P.H., Columbia, 1981*

SPECIAL LECTURERS

Harold S. Ginsberg, M.D.
Hamilton Southworth, M.D.
Alfred Steiner, M.D.

SENIOR LECTURER

Nicholas P. Christy, M.D.

LECTURERS

Jacob M. Cohen, M.B.,Ch.B.
Martin M. Grajower, M.D.
William M. Manger, M.D.
Fred S. Schwartz, M.D.
Raanan Smelin, M.D.
Henry M. Thomas III, M.D.
Felix Wimpfheimer, M.D.

ASSOCIATES IN CLINICAL MEDICINE

Rochelle L. Goldsmith, Ed.D., Ph.D.
Elias M. Kaimakliotis, M.D.
Harold Novog, M.D.
Karen P. Oldham, M.D.
Alan L. Saroff, M.D.

INSTRUCTORS IN CLINICAL MEDICINE

Jose M. Baez, M.D.
Jonathan M. Barasch, M.D.
Randolph C. Barrows, Jr., M.D.
Martin J. Birkhofer, M.D.
Barbara A. Bowe, M.D.
Sonia M. M. Cabrera-Quezada, M.D.
Kunjuraman Chandramohan, M.B.,B.S.
Robert G. Chin, M.D.
Joaquim J. Correia, M.D.
Tara A. Cortes, Ph.D.
Michael H. Crooks, M.D.
Stephanie N. De Jesus, M.D.
Servando G. De Los Angeles, M.D.
Ramon M. Delmonte, M.D.
Angela M. Dimango, M.D.
Christopher J. Elias, M.D.
David Feit, M.D.
Michael Goldman, M.D.
Robert L. Goodman, M.D.
Robert A. Green, M.D.
JoEllen Habas, M.D.
Carmen E. Heath, M.D.
Glendson C. Henry, M.D.
Ralph Herz, Jr., M.D.
Peter L. Hofmann, M.D.
Charles A. Knirsch, M.D.
Rebecca J. Kurth, M.D.
Jeffrey A. Leavy, M.D.
Barbara J. Leibowitz, M.D.
Jeremy Luban, M.D.
Kim M. Lucas, M.D.
James F. Marion, M.D.
Edwin Naamon, M.D.
Jennifer M. Plumb, M.D.

INSTRUCTORS *(continued)*

Douglas E. Price, M.D.
Milovan T. Rakic, M.D.
John T. Redd, M.D.
Barry Richard Rudin, M.D.
Joseph J. Sachter, M.D.
Robert S. Siebken, M.D.
Joshua I. Stillman, M.D.
Robert A. Vaccarino, M.D.
Kenneth J. Vega, M.D.
Diodato Villamena, M.D.
Robert H. Williams, M.D.
Michael J. Yellin, M.D.

ASSISTANTS

Argon Atac, M.D.
Abdul C. K. Azeez, M.B.,B.S.
Theodore C. Docu, M.D.
Carl J. Franzetti, D.O.
Saul Gilson, M.D.
David A. Gomez, M.D.
Harold Grushkin, M.D.
Suresh K. Hemrajami, M.B.,B.S.
Avraham Henoch, M.D.
Issachar Karten, M.D.
Karel R. Kennedy, M.D.
Eric A. Larsen, M.D.
Chong H. Lee, M.D.
Simon Leiderman, M.D.
Frank J. Maselli, M.D.
Neil J. Miller, M.D.
Luis A. Morales, M.D.
Jose C. Ortiz, M.D.
Socrates Perez, M.D.
Bernard F. Ronald, M.D.
Pradip Sedani, M.B.,B.S.
Dana Shani, M.D.
Norman Spitzer, M.D.
P. A. Sundararajan, M.D.
Silburn Thomas, M.D.
Abraham Weissman, M.D.
Isaac D. Wurzburger, M.D.

At Mary Imogene Bassett Hospital

Professor of Clinical Medicine

Walter A. Franck. *B.A., Yale, 1960; M.D., Columbia, 1964*

Clinical Professors

John S. Davis. *B.A., Hamilton, 1952; M.D., Harvard, 1956*
William F. Streck. *B.A., Oklahoma State, 1968; M.D., Missouri, 1973*

Associate Professors of Clinical Medicine

Gerald D. Groff. *B.A., Franklin and Marshall, 1983; M.D., Rochester, 1977*
Herbert J. Marx. *B.E.E., Rensselaer Polytechnic Institute, 1954; M.D., Columbia, 1960*
Gary Weaver. *B.A., Goshen, 1964; M.D., Kansas, 1968*

Associate Clinical Professors

Peter L. Arquin. *M.D., Pennsylvania State, 1972*
Patrick Dwyer. *B.S., Notre Dame, 1973; M.D., Washington (St. Louis), 1977*
Daniel Gregory. *A.B., Hamilton, 1957; M.D., Virginia, 1962*
Richard J. Horner. *B.A., Dartmouth, 1966; B.M.S., 1967; M.D., Harvard, 1969*
Alan J. Kozak. *B.A., Rochester, 1965; M.D., 1969*
John J. May. *B.S., Notre Dame, 1969; M.D., Case Western Reserve, 1973*
Donald O. Pollock. *A.B., Hamilton, 1951; M.D., Harvard, 1955*
Donald A. Raddatz. *B.A., Holy Cross, 1971; M.D., Minnesota, 1975*
Richard E. Reese. *B.A., Dartmouth, 1965; M.D., Harvard, 1969*
David S. Svahn. *B.S., Massachusetts Institute of Technology, 1960; M.D., Columbia, 1965*
David W. Vaules. *A.B., Dartmouth, 1960; M.S., 1961; M.D., Rochester, 1963*

Research Scientist

Leonard A. Sauer. *B.S., Cornell, 1956; M.D., Rochester, 1961; Ph.D., Rockefeller, 1966*

Assistant Professors of Clinical Medicine

Michael A. Bauer. *B.S., Brown, 1973; M.D., Chicago, 1977*
Lee C. Edmonds. *B.S., Bucknell, 1979; M.D., Jefferson, 1985*
Emery C. Herman. *B.A., Emory, 1949; M.D., Johns Hopkins, 1953*
Peter J. Howard. *B.A., Dartmouth, 1971; M.D., McGill, 1975*
Joseph M. Hughes. *A.B., Hamilton, 1974; M.D., Georgetown, 1978*
Peter J. Jederlinic. *B.S., Manhattan, 1974; M.A., Columbia, 1976; M.D., State University of New York (Buffalo), 1979*
Antoinette Kuzminski. *B.A., Smith, 1967; M.A., Rochester, 1970; M.D., Hawaii, 1977*
Don V. Lewis. *B.A., North Carolina, 1967; M.D., 1971*
Nancy Beth Merrell. *B.S., Wayne State, 1970; Ph.D., 1972; M.D., 1976*
Anne N. Nafziger. *B.A., Goshen, 1979; M.D., Case Western Reserve, 1984*
Jessica Rockwell. *B.S., Boston, 1976; M.D., State University of New York (Buffalo), 1982*
Dennis A. Savoie. *B.A., Providence, 1967; M.D., Vermont, 1971*

Assistant Professor of Clinical Pharmacology

Joseph S. Bertino, Jr. *B.S., State University of New York (Buffalo), 1976; Dr. Pharm., 1978*

Assistant Clinical Professors

Carol Beechy. *B.A., Goshen, 1970; M.D., Kentucky, 1977*
John W. Brereton. *B.S., U.S. Naval Academy, 1967; M.D., Georgetown, 1976*
James T. Dalton. *B.A., Princeton, 1975; M.D., Washington, 1979*
Mark D. Darrow. *B.S., State University of New York (Albany), 1979; M.D., State University of New York (Stony Brook), 1983*
Eric J. Del Giacco. *B.S., Haverford, 1978; M.D., Chicago, 1982*
Donald M. Doynow. *B.S.,B.E., State University of New York (Stony Brook), 1975; M.D., South Alabama, 1985*
Philip J. Dzwoncyzk. *B.S., Scranton, 1975; M.D., Jefferson, 1979*
Michael A. Foltzer. *B.A., St. Louis, 1977; M.D., Cincinnati, 1981*
Frank M. Hall. *B.A., Washington & Jefferson, 1966; M.D., State University of New York (Buffalo), 1970*

Barbara Healey. *B.S., Stonehill, 1974; M.D., Massachusetts, 1981*
Paul E. Heasley. *B.S., Allegheny, 1979; M.D., Rochester, 1983*
Michael J. Hodgman. *B.A., Southern Illinois, 1978; M.D., Chicago, 1984*
August J. Leinhart. *B.A., Cornell, 1973; M.D., Albert Einstein, 1978*
Michael Levenstein. *B.A., State University of New York (Oneonta), 1974; M.D., State University of New York (Stony Brook), 1981*
Matthew E. Marvel. *B.S., Colorado, 1978; M.D., 1982*
R. Edward Miner. *B.S., Alfred, 1966; M.D., State University of New York (Syracuse), 1970*
Evan S. Morrison. *B.S., Haverford, 1980; M.D., Hahnemann, 1985*
Patricia M. Mower. *B.S., Fitchburg State College, 1961; M.D., New York Medical College, 1982*
Nicholas A. Orfan. *B.S., Northwestern, 1980; M.D., 1984*
Deanna Palumbo. *B.A., State University of New York (Buffalo), 1978; M.D., New York Medical College, 1982*
Edward F. P. Philbin. *B.A., Lafayette, 1979; M.D., College of Medicine and Dentistry of New Jersey, 1983*
Lee Robbins. *B.S., M.D., Rensselear Polytechnic Institute, Albany Medical College, 1976*
Robert N. Santella. *B.A., Dartmouth, 1979; M.D., Creighton (Omaha), 1983*
Joseph R. Sellers. *B.A., Rochester, 1978; M.S., Virginia Commonwealth, 1980; M.D., Georgetown, 1985*
John E. Shields. *B.S., Notre Dame, 1964; M.D., State University of New York (Buffalo), 1968*
William W. Stocker (also Dermatology). *A.B., Harvard, 1966; M.D., Case Western Reserve, 1970*
James J. Stragand. *B.S., Point Park, 1971; Ph.D., Pittsburgh, 1976; M.D., Southwestern, 1985*
John C. Tangeman. *A.B., Hamilton, 1979; M.D., State University of New York (Syracuse), 1983*
Paul C. Tirrell. *B.S., M.S., Villanova, 1979; Ph.D., State University of New York (Binghamton), 1983; M.D., Miami, 1986*
Richard J. Trimble. *B.S., Boston, 1978; M.D., Georgetown, 1982*
James W. Walker, Jr. *B.A., North California, 1975; M.D., Georgia, 1981*
Henry F. Weil. *B.S., Hamilton, 1980; M.D., Columbia, 1986*
Ruth E. Weissberger. *B.A., Brown, 1975; M.D., Jefferson, 1983*
Jill M. Winslow. *B.S., Wilkes, 1984; M.D., Hahnemann, 1984*
Lawrence P. Zyskowski. *B.A., Rutgers, 1970; Ph.D., Dartmouth, 1975; M.D., Minnesota, 1977*

Associate Research Scientist

Estelle M. Goodell. *B.A., Marietta College (Ohio), 1972; Ph.D., Medical College of Virginia, 1979*

INSTRUCTOR IN CLINICAL MEDICINE

Stephen A. Rollo, M.D.

At Harlem Hospital Center

Professor of Clinical Medicine

Charles K. Francis (also Public Health) (Health Policy & Management). *A.B., Dartmouth, 1961; M.D., Jefferson, 1965*

Clinical Professors

Charles P. Felton. *B.S., Xavier, 1949; M.D., Geneva, 1956*
Kenneth Sterling. *A.B., Harvard, 1940; M.D., Johns Hopkins, 1943*
Charles M. Yergan. *B.S., Columbia, 1944; M.D., 1947*

Associate Professors of Clinical Medicine

Wafaa M. El-Sadr. *M.D., Cairo, 1974*
Clayton L. Natta. *B.A., McMaster, 1957; M.D., Toronto, 1961*
David G. Savage. *B.A., Wesleyan, 1970; M.D., Columbia, 1974*

Associate Clinical Professors

Alfred R. Ashford. *B.A., Rutgers, 1970; M.D., Georgetown, 1975*
Jay Brown. *B.A., Rutgers, 1964; M.D., New York University, 1968*
Jeanne A. Smith. *B.A., Sarah Lawrence, 1953; M.D., New York University, 1957*

Assistant Professors of Clinical Medicine

William H. Adams. *B.A., Ohio State, 1958; M.D., 1962*
Nanette Alexander-Thomas. *B.A., New York University, 1979; M.D., Boston, 1984*
Frank C. Babb. *B.S., Long Island, 1977; M.D., Case Western Reserve, 1981*
Jeffrey S. Ben-Zvi. *B.S., Brooklyn, 1979; M.D., Columbia, 1983*
Vladimir Berthaud. *M.D., Faculte de Medicine (Haiti), 1980*
Jen-Tse Cheng. *M.D., National (Taiwan), 1961*
Shirley Donelson. *B.A., Cornell, 1980; M.D., Howard, 1984*
Martin H. Ehrlich. *B.S., Long Island, 1932; M.D., New York Medical College, 1936*
Jeanne L. Hotchkiss. *B.S., Southern California, 1961; M.D., Georgetown, 1967*
Richard O. Kennedy. *B.S., New School, 1978; M.D., Pittsburgh, 1985*
Paul Killian. *B.S., Wake Forest, 1957; M.D., Bowman Gray, 1961*
Hazeline Nurse. *B.A., City University of New York, 1965; M.D., Medical College of Pennsylvania, 1969*
Lisa A. Ozick. *B.A., Hunter, 1977; M.D., Columbia, 1981*
Dhiren B. Patel. *M.B.,B.S., Baroda (India), 1988*
Velvie Ann Pogue. *B.S., Southern (Baton Rouge), 1970; M.D., Harvard, 1974*
Claude D. Simon. *B.A., Princeton, 1978; M.D., Massachusetts, 1984; Ph.D., 1988*
Andre L. Smith. *B.A., Williams, 1978; M.D., Columbia, 1982*
Judith O. Solowale. *B.S., Murray, 1977; M.P.H., Tennessee, 1978; M.D., St. George (Grenada, West Indies), 1984*

Assistant Clinical Professors

Sapphire M. Ahmed. *B.A., New School for Social Research, 1977; M.D., Dartmouth, 1984*
Brenda Aiken-Thompson. *B.A., Columbia, 1977; M.D., 1981*
Brenda A. Bennett. *B.S., Seton Hall, 1974; M.D., State University of New York (Buffalo), 1978; M.P.H., Columbia, 1982*
Lawrence Brown, Jr. *B.A., Brooklyn, 1976; M.D., New York University, 1979; M.P.H., Columbia, 1979*
Eddy Cadet. *M.D., Libre de Bruxelles (Belgium), 1985*
Linnea Capps (also Public Health) (Epidemiology). *B.S., Kansas, 1971; M.D., Missouri, 1977; M.P.H., Columbia, 1985*
Lynette Carrington. *B.S., Long Island, 1978; M.D., New York University, 1982*
Gerard A. Casey. *B.S., Fordham, 1975; M.D., Tel Aviv (Israel), 1986*
James T. Chien. *M.D., Yale-in-China Medical College, 1943*
Aubrey G. Clarke. *B.S., Fordham, 1973; M.D., Howard, 1977*
Marvin C. Cooper. *B.S., Queens (New York), 1960; M.D., St. Louis, 1965*
Ann Jennings-Purnell. *B.A., Sarah Lawrence, 1975; M.D., New York University, 1979*
Ellen M. Michaelson. *B.A., Brandeis, 1975; M.D., Massachusetts, 1982*
Margaret Olibrice. *B.A., Rutgers, 1980; M.D., College of Medicine and Dentistry of New Jersey, 1984*
Nely S. Recano. *A.A., University of the Philippines, 1959; Dr.M.S., 1960*
Lynne D. Richardson, *B.S., Massachusetts Institute of Technology, 1976; M.D., Albert Einstein, 1980*

Earl A. Scott. *B.A., Fordham, 1975; M.D., Columbia, 1978*
Vel Sivapalan. *M.B.,B.S., Colombo (Sri-Lanka), 1980*
Valerie C. Smart. B.M.,*B.S., West Indies (Kingston, Jamaica), 1981*
Reynold L. Trowers. *B.A., Brown, 1975; M.D., 1979*
Claudette H. Troyer. *A.B., Princeton, 1974; M.D., Columbia, 1978*
Eric J. Vanderbush. *B.A., St. Olaf, 1964; M.D., Columbia, 1968*

ASSOCIATE IN CLINICAL MEDICINE

Pearl D. Foster, M.D.

INSTRUCTORS IN CLINICAL MEDICINE

Vattathara V. Abraham, M.B.,B.S.
Herman L. Anderson, Jr., M.D.
Viola Anderson-Griffith, M.D.
Anwar N. Aziz, M.D.
Miguel F. Beltre, M.D.
Constancia Bueno-So, M.D.
Arturo A. Caesar, M.D.
Robert Z. Carey, M.D.
Don A. Dayson, M.D.
Wilfred Desir, M.D.
Fitzroy A. Elliott, M.D.
Jean G. Ford, M.D.
Peter Foster, M.D.
Max P. Francois, M.D.
Kathi C. Garner, M.D.
Major Geer, M.D.
Robert Gibbs, M.D.
Nilsa S. Gutierrez, M.D.
Ross T. Hamilton, M.D.
Barbara J. Harmon, M.D.
Brenda R. Harris, M.D.
Matthews K. Hurley, M.D.
Walter W. Johnson, M.D.
Furman M. Jones, M.D.
Grantley F. Joseph, M.D.
Joyce P. Kellawon, M.D.
Myung-Sook Kim, M.D.
Laura J. Matthew-Thompson, M.D.
Francky Merlin, M.D.
Eugene A. Paul, M.D.
Omiel L. Powell, M.D.
Thomas J. Price, M.D.
Eldon A. Redwood, M.D.
Foluke O. Salu, M.B.B.S.
George Samuel, M.D.
Antonio T. Sevilla, M.D.
Deborah A. Simmons, M.D.
Garry C. Souffrant, M.D.
Frank N. Tilley, M.D.
Kim B. Wood, M.D.

At Helen Hayes Hospital

Professor of Clinical Medicine

Robert Lindsay. *M.P.C.B., Glasgow, 1968; Ph.D., 1969*

Assistant Clinical Professors

Andrew D. Beamer. *B.A., Duke, 1977; M.D., Johns Hopkins, 1982*
Howard Blank. *B.S., Brooklyn, 1968; M.D., Mount Sinai, 1972*

INSTRUCTORS IN CLINICAL MEDICINE

Marjorie E. Baron, M.D.
John T. Pellicone, M.D.

At Morristown Memorial Hospital

Professor of Clinical Medicine

Albert S. Klainer. *B.S., Massachusetts Institute of Technology, 1957; M.D., Tufts, 1961*

Clinical Professor

John S. Banas, Jr. *B.S., Tufts, 1959; M.D., 1963*

Associate Clinical Professors

Emil Bisaccia (also Dermatology). *B.A., Ohio State, 1974; M.D., Medical College of Ohio, 1979*
Stephen L. Winters. *B.A., New York University, 1975; M.D., Mount Sinai, 1979*

Assistant Clinical Professors

Kenneth R. Adler. *B.S., Pittsburgh, 1968; M.D., Albany Medical College, 1973*
Donna J. Astiz. *B.A., Pomona (California), 1973; M.D., Creighton, 1978*
Mark T. Atkins. *B.A., Rochester, 1966; M.D., George Washington, 1969*
Hillel Ben-Asher. *A.B., Chicago, 1952; M.D., 1956*
Joel E. Cannilla. *B.S., Mt. St. Mary's, 1956; M.D., Seton Hall, 1960*
Robert A. Capone. *B.A., New York University, 1974; M.D., Columbia, 1978*
Alan Chanin. *B.A., Franklin & Marshall 1973; M.D., Albert Einstein, 1976*
Kevork Cileli. *M.D., Ankara (Turkey), 1957*
Bernard Davidoff. *B.A., St. John's, 1969; M.D., Columbia, 1973*
Barry Efros. *B.A., George Washington, 1970; M.D., College of Medicine & Dentistry of New Jersey, 1974*
Joel R. L. Ehrenkranz. *M.D., Stanford, 1977*
Joseph F. Fennelly. *B.S., Seton Hall, 1952; M.D., New York Medical College, 1956*
Paul L. Fine. *B.S., Haverford, 1975; M.D., Yale, 1979*
Arthur Fisch. *B.A., Rutgers, 1965; M.D., Boston, 1969*
Stuart Warren Fox. *B.A., Cornell (Ithaca), 1971; M.D., 1975*
Arthur J. Geller. *A.B., Dartmouth, 1954; M.D., Chicago, 1959*
Gary Gerstein. *B.S., St. Joseph's (Pennsylvania), 1969; M.D., Jefferson, 1973*
Stephen Guss. *B.A., Yale, 1964; M.D., Harvard, 1968*
Oscar R. Kruesi. *B.S., Union (Schenectady), 1947; M.D., Cornell, 1951*
David S. Lerman. *B.A., New York University, 1964; M.D., Hahnemann, 1968*
Robert V. McCormick. *S.B., Harvard, 1944; M.D., 1946*
Sudhir Mehta. *B.S., Bombay, 1967; M.B.,B.S., 1972*
Earl Nielson. *B.S., City College of New York, 1962; M.D., Vermont, 1966*
Mark A. Oliver. *B.S., Vermont, 1967; M.D., Chicago, 1971*
Stephen W. Papish. *B.A., Pennsylvania, 1970; M.D., 1974*
William M. Petkun. *A.B., Harvard, 1978; M.D., New York University, 1982*
William S. Pond. *B.S., Michigan, 1973; M.D., Tufts, 1977*
John E. Rossman. *M.D., Illinois, 1966*
Joseph J. Ryan. *B.S., Notre Dame, 1965; M.D., State University of New York (Downstate), 1970*
John S. Salaki. *B.S., Mount St. Mary's, 1967; M.D., College of Medicine and Dentistry of New Jersey, 1971*
Michael A. Samach. *A.B., Cornell, 1967; M.D., New York University, 1971*
Craig A. Schiffner. *B.A., Princeton, 1973; M.D., George Washington, 1977*
Felix Schletter. *B.S., Rutgers, 1954; M.D., State University of New York (Albany), 1958*
Nassare-Din Shariati. *M.D., National University of Iran (Tehran), 1972*
Charles A. Shioleno. *M.D., Georgetown, 1977*
Lawrence B. Stein. *B.S., B.A., Minnesota, 1961; M.D., 1965*
James R. Sterret. *B.S., Virginia Military Institute, 1967; M.D., Virginia, 1971*
Jerrold M. Stock. *B.A., Northwestern, 1964; M.D., Chicago, 1968*
Gary Weine. *B.S., Queens, 1972; M.D., Cornell, 1976*
David Widman. *B.A., New York University, 1971; M.D., Harvard, 1975*
Barry Zitomer. *B.A., Rutgers, 1959; M.D., Pennsylvania, 1963*

INSTRUCTORS IN CLINICAL MEDICINE

Steven Adler, M.D.
Jon William Brunswick, M.D.
Ronald Ciuffreda, M.D.
John J. Delaney, M.D.
Robert S. Freid, M.D.
Peter Gallerstein, M.D.
Lee W. Geller, M.D.
Steven Mark Gudis, M.D.
M. Patricia Harris, M.D.
Arthur N. Hoaglund, M.D.
Ibrahim Housri, M.D.
Stephen Krasnica, M.D.
David Lewin, M.D.
Stelio Mangiola, M.D.
James S. Najarian, M.D.
Marilyn Orenstein, M.D.
Michael Orenstein, M.D.
John Penek, M.D.
Celso S. Puno, M.D.
Ralph Reichert, M.D.
Barry Reiter, M.D.
Carmen M. Renna, M.D.
Marie Lalor Rozan, M.D.
Stephen W. Rozan, M.D.
Leslie David Schlesinger, M.D.
Stephen Mark Schreibman, M.D.
Dean C. Shore, M.D.
Jay I. Stack, M.D.
John G. Valeri, M.D.
Richard Ira Watson, M.D.
Bennett Weissglass, M.D.
Paul H. Wichman, M.D.

At Overlook Hospital

Clinical Professor

Michael Bernstein. *M.D., New York Medical College, 1953*

Associate Professor of Clinical Medicine

John J. Gregory. *B.S., Worcester Polytechnic Institute, 1953; M.D., State University of New York (Albany), 1961*

Associate Clinical Professors

Joel L. Duberstein (Family Practice). *B.A., Princeton, 1957; M.D., Columbia, 1961*
Mary T. Herald. *B.A., New Rochelle, 1965; M.D., College of Medicine and Dentistry of New Jersey, 1969*

Assistant Clinical Professors

Michael B. Alexander. *B.S., Georgetown, 1974; M.D., 1978*
Michael Algus. *B.A., State University of New York (Buffalo), 1975; M.D., State University of New York (Downstate), 1979*
Lloyd Howard Alterman. *B.A., State University of New York (Stony Brook), 1973; M.D., Wayne, 1977*
Kevin Edmund Bell. *M.D., Columbia, 1975*
Kenneth Brin. *Sc.B., Brown, 1969; M.D., Ph.D., New York University, 1975*
Fred G. Bromberg. *B.A., Johns Hopkins, 1974; M.D., Rochester, 1978*
Ronald C. Brown. *B.A., Rutgers, 1970; M.D., Yale, 1974*
Stuart Burstin. *B.A., Boston, 1969; M.D., Ph.D., New York University, 1975*
Nereida Diaz-Johnson. *B.A., Cornell, 1978; M.D., Mt. Sinai, 1982*
Michele B. Elkins. *M.D., Louis Pasteur (France), 1978*
Stephen J. Fischl. *B.A., Seton Hall, 1963; M.D., College of Medicine and Dentistry of New Jersey, 1967*
Robert A. Fuhrman. *B.A., Clark, 1962; M.D., Chicago, 1966*
J. Scott Gillin. *B.A., Cornell, 1974; M.S., Columbia, 1975; M.D., College of Medicine and Dentistry of New Jersey, 1979*
Carl S. Goldstein. *B.A., Cornell, 1973; M.D., Washington, 1978*
Peter L. Goodluck. *M.B.,B.S., Medical College (Bombay), 1958*
Samuel M. Gray. *B.S., Chicago, 1963; M.D., 1967*

E. Thomas Holland (Family Practice). *B.A., Wesleyan, 1971; M.D., Chicago, 1975*
Thomas V. Inglesby. *B.S., Mt. St. Mary's, 1959; M.D., Maryland, 1963*
James Itzcovitz. *B.S., Pennsylvania State, 1971; M.A., 1974; M.D., Pittsburgh, 1981*
Susan T. Kaye. *B.S., Brown, 1975; M.D., New York University, 1979*
Michael B. Kerner. *B.S., Rutgers, 1967; M.D., Bowman Gray, 1971*
Eileen C. Klein. *B.S., State University of New York (Albany), 1982; M.D., New York University, 1986*
Joel D. Levinson. *B.A., Cornell, 1959; M.D., Georgetown, 1963*
Joseph G. Loeffler, *B.A., Holy Cross, 1972; M.D., Albert Einstein, 1978*
Michael Stephen Lux. *B.S., City University of New York, 1973; M.D., New York University, 1977*
Mark K. Matthews. *B.S., St. John Fisher (Rochester, New York), 1975; M.D., Georgetown, 1979*
Linda W. McClintic. *B.S., Union, 1975; M.D., New York Medical College, 1980*
Lawrence J. Nastro. *B.A., Brooklyn, 1961; M.D., State University of New York (Downstate), 1965*
Steven J. Stanzione. *B.A., Georgetown, 1962; M.D., College of Medicine and Dentistry of New Jersey, 1966*
William A. Tansey, III. *B.A., Yale, 1966; M.D., Columbia, 1970*
Lorraine L. Tosiello. *B.A., New York University, 1975; M.D., State University of New York (Downstate), 1981*
William N. Toth. *B.S., Georgetown, 1956; M.D., Hahnemann, 1960*
William E. Wagner, Jr. *B.A., Princeton, 1945; M.D., Columbia, 1950*
Richard Weinberg. *B.S., Rensselaer Polytechnic Institute, 1970; M.D., Union, 1970*
Donald H. Wernsing (Family Practice). *M.D., Hahnemann, 1975*

Assistant Clinical Professor of Social Medicine

Joseph C. D'Oronzio. *A.B., Syracuse, 1959; Ph.D., 1965; M.P.H., Harvard, 1980*

INSTRUCTORS IN CLINICAL MEDICINE

Ana L. Baez, M.D.
Joseph A. Belladonna, M.D.
Donald J. Brock, M.D.
H. Oliver Brown, Jr., M.D.
Kopel Burk, M.D.
Joseph A. Clemente, M.D.
Andrew Coronato, Jr., M.D.
Ann Petra D'Adamo, M.D.
Rosina B. Dixon, M.D.
Charles E. Dooley, Jr., M.D.
Joseph T. Faraldo, M.D.
John P. Farry, M.D.
Trina Frankel, M.D.
Harvey Gerhard, M.D.
David E. Guyer, M.D.
James J. Hakim, M.D.
Eugene R. Kelly, M.D.
Thomas H. Kloos, M.D.
A. Ralph Kristeller, M.D.
Kerry S. Lebenger, M.D.
David I. Lintz, M.D.
Ines Linzmayer, M.D.
Marvin A. Lipsky, M.D.
Dennis A. Lowenthal, M.D.
Robert P. Margie, M.D.
David P. Miller, M.D.
Daniel J. Moriarty, M.D.
Sanford M. Reiss, M.D.
Robert L. Rosenbaum, M.D.
Melvin Rubinstein, M.D.
R. Gregory Sachs, M.D.
Robert D. Slama, M.D.
Robert R. Springer, M.D.
Elliott M. Stein, M.D.
Michael Suhl, M.D.
Michael J. Tighe, M.D.
Burton Tucker, M.D.
Michael B. Wax, M.D.
David Allen Worth, M.D.

At St. Luke's-Roosevelt Hospital Center

Professors

John F. Bertles. *B.S., Yale, 1945; M.D., Harvard, 1952*
Peter R. Holt. *B.Sc., Tolington, 1949; M.B.,B.S., London, 1954*

Gerald B. Phillips. *B.A., Princeton, 1946; M.D., Harvard, 1948*
F. Xavier Pi-Sunyer. *B.A., Oberlin, 1955; M.D., Columbia, 1959*
William Rosner. *B.A., Wisconsin, 1954; M.D., Albert Einstein, 1961*
Gerard M. Turino (John H. Keating, Sr., Professor). *B.A., Princeton, 1945; M.D., Columbia, 1948*
Harvey J. Weiss. *A.B., Harvard, 1951; M.D., 1955*

Adjunct Professor

Jules Hirsch. *B.S., Rutgers, 1944; M.D., Texas, 1948*

Professors of Clinical Medicine

A. L. Loomis Bell. *B.S., Wesleyan, 1944; M.D., Harvard, 1947*
Stanley Cortell. *B.S., Massachusetts Institute of Technology, 1957; M.D., Tufts, 1961*
Edward M. Dwyer. *B.A., Columbia, 1957; M.D., 1961*
Michael H. Grieco. *B.A., New York University, 1954; M.D., State University of New York (Downstate), 1957*
Harvey G. Kemp. *B.A., Oklahoma, 1955; M.D., Johns Hopkins, 1959*
Emil Pascarelli. *B.A., Columbia, 1952; M.D., Pavia (Italy), 1958*
Richard N. Pierson, Jr. *B.A., Princeton, 1951; M.D., Columbia, 1955*
Miles J. Schwartz. *B.S., Queens (New York), 1947; M.D., New York University, 1961*

Clinical Professors

Richard P. Ames. *B.A., Williams, 1954; M.D., Columbia, 1958*
Jonas M. Goldstone. *S.B., Harvard, 1951; M.D., 1955*
Philip H. Henneman. *A.B., Harvard, 1943; M.D., 1946*
Richard McCray. *B.A., Wesleyan, 1954; B.D., Yale Divinity School, 1957; M.D., Columbia, 1962*

Senior Research Scientist

Beatrice M. Fairchild. *B.A., Hunter, 1942; M.A., Bryn Mawr, 1943; Ph.D., 1948*

Associate Professors

Steven B. Heymsfield. *B.A., Hunter, 1966; M.D., Mt. Sinai, 1971*
Robert G. Lahita. *B.S., St. Peter's (New Jersey), 1967; M.D., Jefferson, 1973*
Alan Rozanski. *B.A., Yale, 1971; M.D., Tufts, 1975*

Associate Professors of Clinical Medicine

Judith Axelrod. *B.S., Wellesley, 1953; M.D., Cornell, 1967*
C. Redington Barrett. *B.A., Yale, 1955; M.D., Columbia, 1959*
Robert S. Bernstein. *B.A., Columbia, 1961; M.D., Harvard, 1965*
Norma M. T. W. Braun. *B.A., Pennsylvania, 1959; M.D., Columbia, 1963*
Airlie A. Cameron. *B.A., Radcliffe, 1957; M.D., McGill, 1961*
Henry M. Greenberg. *B.A., Pennsylvania, 1961; M.D., Tufts, 1965*
Judith S. Hochman. *B.A., Brandeis, 1972; M.A., Harvard, 1974; M.D., 1977*
Donald Philip Kotler. *M.D., Albert Einstein, 1973*
Michael Lange. *M.D., Toronto, 1968*
Marianne J. Legato. *B.A., Manhattanville, 1956; M.D., New York University 1962*
Michelle P. Warren (also Obstetrics & Gynecology). *B.A., Mt. Holyoke, 1961; M.D., Cornell, 1965*

Associate Professor of Clinical Physiological Medicine

Jahar Bhattacharya. *M.B.,B.S., India Institute of Medicine (New Delhi), 1968; M.S., Ph.D., Oxford, 1973*

Associate Clinical Professors

Albert Attia. *B.A., Cornell, 1955; M.D., 1958*
Harrison G. Bloom. *B.A., Pennsylvania, 1968; M.D., Minnesota, 1975*
Patricia A. Bloom. *B.A., Minnesota, 1971, M.D., 1975*
Carlton Boxhill. *B.A., Columbia, 1964; M.D., 1968*
Norman A. Cagin. *B.S., Rutgers, 1963; M.D., New York Medical College, 1967*
Richard Collens. *B.S., Massachusetts Institute of Technology, 1959; M.D., New York Medical College, 1966*
George Dermksian. *B.A., Columbia, 1948; M.A., Tulane, 1950; M.D., Cornell, 1954*
James B. Gabriel. *B.A., Brown, 1945; M.D., Harvard, 1949*
Oscar B. Garfein. *B.A., Columbia, 1961; M.D., 1965*
Ann Geller. *M.A., Oxford, 1957; M.D., London, 1960*
Gregg Armin Husk. *B.S., Chicago, 1970; M.D., 1975*
Arthur Karanas. *B.A., New York University, 1954; M.D., State University of New York (Downstate), 1958*
Ronald Kraft. *B.S., Michigan, 1966; M.D., Cincinnati, 1970*
Arthur J. Lennon. *B.A., Fordham, 1956; M.D., Columbia, 1960*
Jonathan A. Lorch. *B.A., Wisconsin, 1968; M.D., Tulane, 1972*
Mary Elizabeth O'Brien. *B.A., Vassar, 1973; M.D., Harvard, 1977*
Myron C. Patterson. *B.A., Columbia, 1939; M.D., 1943*
Bruce H. Pinkernell. *B.A., Johns Hopkins, 1960; M.D., 1964*
Norton S. Rosensweig. *B.A., Princeton, 1957; M.D., New York University, 1961*
Jean W. Saleh. *B.A., St. Joseph (Beirut), 1957; M.D., Faculté Française de Medecine, 1964*
Lawrence Scharer. *B.A., Columbia, 1954; M.D., 1958*
Gerald Weintraub. *B.A., New York University, 1950; M.D., 1954*
Herman Ziffer. *B.A., Brooklyn, 1949; M.D., Chicago, 1953*

Assistant Professors of Clinical Medicine

Antoine G. Abd. *B.S., American University (Beirut), 1978; M.D., 1983*
Jeannine B. Albu. *M.D., Tel Aviv (Israel), 1982*
Bertha Ann Bauer. *B.A., Smith, 1973; M.D., Columbia, 1977*
Edward W. Colt. *M.D., University of London, 1962*
Michael S. Conjalka. *B.S., Indiana, 1962; M.D., Northwestern, 1973*
Beatrice De La Fuente. *B.S., Miguel Angel Institute (Mexico), 1966; M.D., National Autonomous University (Mexico), 1973*
Edward Eden. *M.B.,B.S., St. Mary's Hospital Medical School, 1975*
Patrick H. Griffin. *B.A., Columbia, 1976; M.D., 1980*
Katherine A. Hawkins. *B.A., Manhattanville, 1964; M.D., Columbia, 1973*
Kenneth J. Herwig. *B.A., State University of New York (Syracuse), 1967; M.D., Pennsylvania State, 1971*
Randy Lyn Levine. *B.S., Cornell, 1975; M.D., State University of New York (Buffalo), 1979*
George F. McKinley. *B.A., Louisville, 1976; M.D., Columbia, 1980*
Nicholas H. E. Mezitis. *B.S., Athens (Greece), 1969; M.D., Heidelberg (West Germany), 1976*
Grace Y. Minamoto. *B.S., State University of New York (Stony Brook), 1978; M.D., Johns Hopkins, 1982*
Allen Mogtader. *B.A, Columbia, 1966; M.D., State University of New York (Downstate), 1970*
Marcia Naveh. *M.S., Tulane, 1972; M.D., Albert Einstein, 1977*
Kenneth R. Ong. *B.S., Michigan, 1972; M.D., Wayne, 1976*
Mark V. Sherrid. *B.A., Cornell, 1969; M.D., Columbia, 1972*
Emilia M. Sordillo. *A.B., Harvard, 1976; M.D., Cornell, 1980*
Jonathan S. Steinberg. *B.A., Queens, 1976; M.D., Mount Sinai, 1980*
Milayna Subar. *B.A., Barnard, 1976; M.D., State University of New York (Buffalo), 1980*

Assistant Clinical Professors

Kenneth A. Altman. *B.A., Cornell, 1950; M.D., Columbia, 1954*
Wendy Aronson. *B.A., Vassar, 1965; M.D., New York University, 1968*
William J. Athos. *B.A., Columbia, 1942; M.D., State University of New York (Downstate), 1956*
Linda S. Attoe. *B.S., College of the City of New York, 1976; M.D., State University of New York (Downstate), 1981*
Lisa E. Babitz. *A.B., Cornell, 1977; M.D., Yale, 1981*
John Thomas Barnard. *M.D., Texas, 1976*
Martin I. Baskin. *B.S., City College of New York, 1979; M.D., Mount Sinai, 1981*
Elizabeth Jane Beautyman. *B.A., Trinity, 1972; M.D., Albany Medical College, 1978*
Harvey Benovitz. *B.A., Washington & Jefferson, 1958; M.D., Albert Einstein, 1962*
Robert Bernot. *B.A., Columbia, 1955; M.D., State University of New York (Buffalo), 1960*
Michael Borecky. *B.A., Wesleyan, 1965; M.D., Columbia, 1969*
Earl B. Brown. *B.S., Emory, 1938; M.D., 1942*
Richard Gunnar Carlson (also Pediatrics). *B.S., Trinity (Hartford), 1966; M.D., Columbia, 1970*
Daniel S. J. Choy. *B.A., Columbia, 1944; M.D., 1949*
Paul Chrzanowski. *B.A., Dartmouth, 1966; B.M.S., 1978; M.D., Washington, 1970*
John Cornwall. *B.A., Williams College, 1970; M.D., Columbia, 1974*
Kay Barbara Cynamon. *B.A., Pennsylvania, 1973; M.D., 1977*
Donald P. Dallas. *B.A., Columbia, 1950; M.D., 1954*
Samuel J. Daniel. *B.A., Queens (New York), 1974; M.D., Columbia, 1978*
Luziano Del Guzzo. *B.S., The City College of New York, 1971; M.D., New York Medical College, 1977*
Howard P. Dembin. *B.S., City University of New York, 1972; M.D., Mt. Sinai, 1976*
Robert K. Emy. *B.A., New York University, 1952; M.D., Medical College of Virginia, 1957*
Arthur Englard. *B.S., Brooklyn, 1971; Ph.D., Cornell, 1977; M.D., Tel Aviv, 1981*
Jason Faller. *B.A., Pennsylvania, 1973; M.D., 1977*
Donald R. Fishman. *B.A., Rochester, 1969; M.D., Pennsylvania, 1973*
Etta Rae B. Frankel. *B.S., Washington (St. Louis), 1964; M.Ed., Columbia, 1971; M.D., 1979*
Martin Jay Frankel. *B.A., Columbia, 1968; M.D., State University of New York (Buffalo), 1972*
Richard P. Fried. *B.A., Brown, 1964; M.D., Columbia, 1968*
Zane Gaut. *B.S., Birmingham Southern, 1950; M.D., Tulane, 1954*
Richard Geltman. *B.A., Rutgers, 1967; M.D., Albert Einstein, 1971*
Joseph D. Granderson. *B.S., City University of New York, 1971; M.D., Albert Einstein, 1975*
Stewart W. Greisman. *A.B., Cornell, 1977; M.D., Yale, 1981*
Joseph A. Grossman. *B.S., City College of New York, 1953; M.D., State University of New York (Downstate), 1957*
Gregory Miner Gustafson. *B.A., Yale, 1971; M.D., Columbia, 1977*
George Haroutiounian. *B.A., Queens, 1975; M.D., Rochester, 1979*
Michelle Herman. *B.S., California (Los Angeles), 1980; M.D., California (San Diego), 1984*
Julian B. Hyman. *B.A., Columbia, 1945; M.D., State University of New York (Albany), 1947*
Annetta J. Kimball. *B.A., Mt. Holyoke, 1964; M.D., Boston, 1968*
Mark Henry Kinn. *B.A., Brooklyn, 1972; M.D., New York University, 1977*
Edith Joan Langner. *B.A., Michigan, 1965; M.D., New York University, 1969*
James David Lax. *B.A., Columbia, 1976; M.D., New York University, 1981*
Andrew C. Leifer. *B.A., Brandeis, 1976; M.D., Albert Einstein, 1980*
Sharon Lewin. *M.D., Toronto, 1975*
Barbara K. Lipton. *B.S., Massachusetts Institute of Technology, 1977; M.D., State University of New York (Buffalo), 1981*
Robert P. Lombardo. *B.S., Notre Dame, 1966; M.D., New York Medical College, 1970*
Athanasius Mallios. *B.A., Columbia, 1968; M.D., State University of New York (Upstate), 1973*
Richard A. Marino. *A.B., Columbia, 1982; M.D., New York Medical College, 1986*
David K. Meriney. *B.A., Duke, 1956; M.D., 1960*
Craig E. Metroka. *A.B., Holy Cross, 1971; M.S., New York University, 1975; M.D., Ph.D., 1978*

Robert Allen Meyers. *A.B., Dartmouth, 1972; B.M.S., 1974; M.D., Columbia, 1976*
Thomas C. Moore III. *B.S., Georgia (Athen), 1969; M.D., Medical College of Georgia (Augusta), 1973*
Lawson A. Moyer, III. *B.A., Virginia, 1968; M.D., 1972*
Carl H. Nacht. *B.S., State University of New York (Stony Brook), 1971; M.D., Temple, 1976*
Thomas M. Nall. *B.A., Wesleyan, 1955; M.D., Cornell, 1959*
Paul Martin Nonkin. *B.A., New York University, 1950; M.D., New York Medical College, 1954*
Mary Margaret O'Sullivan. *B.A., Fordham, 1971; M.D., Cornell, 1975*
John J. Olichney. *B.S., Rutgers, 1965; M.D., State University of New York (Albany), 1969*
Angela A. Palazzo. *B.S., Fairleigh Dickinson, 1975; M.D., State University of New York (Downstate), 1980*
Barbara Lynn Parks. *B.A., Wisconsin, 1971; M.D., 1978*
Anthony J. Pepe. *B.S., St John's (New York), 1966; M.D., Columbia, 1970*
Arnold Morris Phillips. *B.S., Massachusetts Institute of Technology, 1974; M.D. Columbia, 1978*
Morton Schwimmer. *B.A., Lafayette (Pennsylvania), 1948; M.D., Jefferson, 1951*
Gregory B. Steinberg. *M.B., B.Ch., Welsh National School of Medicine (Cardiff, Wale), 1978*
Kenneth N. Weinstein. *B.A., Vermont, 1955; M.D., New York University, 1959*
William P. Winkler. *B.S., Brown, 1972; M.S., Polytechnic Institute of New York, 1974; M.D., Columbia, 1978*
Michelle L. Winter. *B.A., Barnard, 1971; M.D., Cornell, 1975*
Maurice E. Wright. *B.S., Fordham, 1983; M.D., Albert Einstein, 1987*

Associate Research Scientists

Thalia Boussios. *B.S., Columbia, 1965; M.S., New York University, 1977; Ph.D., 1978*
Bonnie Bray. *B.S., Georgia, 1950; Ph.D., Columbia, 1963*
Yoritaro Inada. *D.V.M., School of Veterinary Medicine (Tokyo), 1969; Ph.D., 1975*
M. Saeed Khan. *M.S., Brown, 1964; Ph.D., Imperial College of Science and Technology (London), 1966*
Bruce R. Lages. *B.S., Stevens Institute of Technology, 1964; M.S., 1967; Ph.D., 1972*
Mohan Muthireval Reddy. *B.S., Agricultural College (India), 1963; M.S., Indian Agricultural Research Institute, 1966; Ph.D., Chicago, 1969*
Mei-Uih Yang. *B.Ed., National University of Taiwan, 1959; M.S., Columbia, 1967; Ph.D., 1976*

SPECIAL LECTURERS

William S. Clark, M.D.
Henry G. Shaffeld, M.D.

SENIOR LECTURER

I. Herbert Scheinberg, M.D.

LECTURERS

Martin Finkel, M.D.
David Schwimmer, M.D.

ASSOCIATES IN CLINICAL MEDICINE

Hillard M. Boskey, M.D.
Valerie A. Brackett, M.D.
Albert Cohen, M.D.
John Cohn, M.D.
Jane-Iris R. Farhi, M.D.
Jeanne Fastook, M.D.
Eugene Freundlich, M.D.
Youssef Ghassibi, M.D.
Andrew M. Goldmann, M.D.
Carolyn E. Goodstein, M.D.
Antoine C. Harovas, M.D.

ASSOCIATES *(continued)*

Karl R. Hoffman, M.D.
Herbert Ivan Jernow, M.D.
Alan Bruce Kadet, M.D.
Woodson Charles Merrell, M.D.
Norman C. Peeler, M.D.
Daniel Rahman, M.D.
Lonny Reisman, M.D.
Guy A. Renvoize, M.D.
Nicholas Steiner, M.D.
John K. Wang, M.D.
Walter Gabriel Wasser, M.D.

INSTRUCTORS IN CLINICAL MEDICINE

Joseph R. Ades, M.D.
Eric Andreae, M.D.
Elliot Arons, M.D.
Lestrino C. Baquiran, M.D.
David H. Baskin, M.D.
Cecil B. Broderick, M.D.
Daniel L. Brook, M.D.
Pedro De Armas, M.D.
Margaret Dessau, M.D.
William E. Edelheit, M.D.
Alan D. Egelman, M.D.
Jerome Paul Ehrlich, M.D.
Michelle A. Flemmings, M.D.
Dennis Gage, M.D.
Lorraine M. Giordano, M.D.
Aron Goldman, M.D.
Martin J. Hecht, M.D.
Kelly J. Henning, M.D.
Wade A. Johnson, M.D.
Mitchell Kahn, M.D.
David A. Kamlet, M.D.
Theresa A. Kierenia, M.D.
Carol Tracy Larson, M.D.
Marcel Laufer, M.D.
Robin Lipschitz, M.B.,Ch.B.
Dean C. Mitchell, M.D.
Richard Ross Neufeld, M.D.
Lazare Novack, M.D.
Martin Saul Pine, M.D.
Michael T. Rendel, M.D.
Gabriel A. Sara, M.D.
Howard N. Schwartz, M.D.
Michael S. Siegal, M.D.
Janice E. Siglin, M.D.
Thomas V. Tupper, M.D.
Steven J. Weiss, M.D.
Michael J. Wiechowski, M.D.
Daniel C. William, M.D.
Paul E. Wiseman, M.D.

Microbiology

Professor and Acting Chairman

Saul J. Silverstein. *B.S., Cornell, 1968; Ph.D., Florida, 1971*

Professors

Kathryn L. Calame (also Biochemistry & Molecular Biophysics). *B.S., Missouri, 1962; M.S., George Washington, 1965; Ph.D., 1975*
Marian B. Carlson (also Genetics & Development) (in the Institute of Cancer Research). *B.A., Radcliffe, 1973; Ph.D., Stanford, 1978*
Dickson D. Despommier (also Public Health) (Tropical Medicine). *B.S., Fairleigh Dickinson, 1962; M.S., Columbia, 1964; Ph.D., Notre Dame, 1967*
Bernard F. Erlanger. *B.S., College of the City of New York, 1943; M.A., New York University, 1948; Ph.D., Columbia, 1951*
David H. Figurski. *B.S., Pittsburgh, 1969; Ph.D., Rochester, 1974*
Stephen Goff (also Eugene Higgins Professor of Biochemistry & Molecular Biophysics). *B.A., Amherst, 1973; Ph.D., Stanford, 1978*
Maxwell E. Gottesman (Charles H. Revson Professor) (also Biochemistry & Molecular Biophysics) (in the Institute for Cancer Research). *B.A., Swarthmore, 1956; M.D., Yale, 1960; Ph.D., 1965*
Benvenuto Pernis (also Medicine). *M.D., Milan, 1947*
Vincent Racaniello. *B.A., Cornell, 1974; Ph.D., Mt. Sinai, 1979*

Senior Research Scientist

Frederick W. Alt (also Biochemistry & Molecular Biophysics). *B.S., Brandeis, 1971; Ph.D., Stanford, 1978*

Associate Professors

Howard A. Shuman. *B.S., Massachusetts, 1974; Ph.D., Harvard, 1979*
Charles Stuart Hamish Young. *B.A., Oxford, 1966; Ph.D., 1969*

Research Scientist

William L. Cleveland. *B.S., Columbia, 1967; Ph.D., Rutgers, 1975*

Assistant Professors

Aaron P. Mitchell (in the Institute for Cancer Research). *B.S., Carnegie-Mellon, 1977; Ph.D., Massachusetts Institute of Technology, 1984*
Paul B. Rothman (also Medicine). *B.S., Massachusetts Institute of Technology, 1980; M.D., Yale, 1984*
David M. Shore. *B.A., Harvard, 1977; Ph.D., Stanford, 1983*
Alan M. Stall. *B.A., Brown, 1974; Ph.D., Chicago, 1983*
Lorraine S. Symington (in the Institute for Cancer Research). *B.S., Glasgow, 1975; Ph.D., Sussex, 1982*

Adjunct Assistant Professors

Vincent Bonagura. *B.A., Columbia, 1971; M.D., 1975*
George Yancopoulos. *B.A., Columbia, 1980; Ph.D., 1986; M.D., 1987*

Associate Research Scientists

Ruth A. Bryan. *B.S., New York University, 1972; Ph.D., Yale, 1981*
Octavian Lungu. *M.D., Institute of Medicine (Timisoara, Romania), 1975*

SPECIAL LECTURERS

Paul Ellner, Ph.D.
Harold Ginsberg, M.D.
Elvin A. Kabat, Ph.D.
Wladyslaw Manski, D.Sc.

SENIOR LECTURER

Russell E. MacDonald, Ph.D.

At St. Luke's-Roosevelt Hospital Center

Senior Research Scientist

George A. Hashim (also Surgery). *Ph.D., Columbia, 1967*

Neurological Surgery

Byron Stookey Professor and Chairman

Bennett M. Stein. *B.A., Dartmouth, 1952; M.D., McGill, 1955*

At Presbyterian Hospital

Professors of Clinical Neurological Surgery

Peter W. Carmel. *B.A., Chicago, 1956; M.D., New York University, 1960*
Edgar M. Housepian. *B.A., Columbia, 1949; M.D., 1953*
James G. McMurtry, III. *B.A., Rice, 1953; M.D., Baylor, 1957*
Donald Oliver Quest. *B.S., Illinois, 1961; M.D., Columbia, 1970*

Professor of Clinical Psychiatry

Joseph Jaffe. *B.A., Columbia, 1944; M.D., New York University, 1947*

Associate Professor

John Pile-Spellman (also Radiology). *B.M.S., South Dakota, 1976; M.D., Tufts, 1978*

Associate Professor of Clinical Neurological Surgery

Robert A. Solomon. *B.A., Yale, 1976; M.D., Johns Hopkins, 1980*

Associate Professor of Clinical Neurology

Matthew E. Fink. *B.A., Pennsylvania, 1972; M.D., Pittsburgh, 1976*

Assistant Professor

Robert R. Goodman. *B.A., Johns Hopkins, 1976; Ph.D., M.D., 1982*

Assistant Professors of Clinical Neurological Surgery

Ronald Brisman. *B.A., Harvard, 1961; M.D., 1965*
Jeffrey N. Bruce (in Pathology). *B.A., Virginia, 1978; M.D., Rutgers, 1983*
Paul C. McCormick. *B.A., Columbia, 1978; M.D., 1982*
Michael B. Sisti. *B.E., Cooper Union, 1977; M.D., Columbia, 1981*

Assistant Clinical Professor

George L. Becker, Jr. *B.A., Johns Hopkins, 1950; M.D., Hahnemann, 1954*

Associate Research Scientist

Gregory J. Duigou. *B.S., Connecticut, 1978; M.S., Kentucky, 1981; Ph.D., 1985*

At Mary Imogene Bassett Hospital

Assistant Clinical Professor

Ernest R. Levy. *M.B.,Ch.B., Witwatersrand (South Africa), 1965*

At Harlem Hospital Center

Assistant Clinical Professors

Robert N. Holtzman. *B.A., Harvard, 1964; M.D., Columbia, 1969*
James E. O. Hughes. *B.A., Yale, 1958; M.D., Pennsylvania, 1962*
Robert W. Schick. *M.D., New York Medical College, 1952*

INSTRUCTOR IN CLINICAL NEUROLOGICAL SURGERY

George V. Di Giacinto, M.D.

At Overlook Hospital

Clinical Professor

Henry Robert Liss. *M.D., Jefferson Medical College, 1948*

Neurology

Henry & Lucy Moses Professor and Chairman

Lewis P. Rowland. *B.S., Yale, 1945; M.D., 1948*

At Presbyterian Hospital

Professors

Darryl C. DeVivo (Sidney Carter Professor) (also Pediatrics). *B.A., Amherst, 1959; M.D., Virginia, 1964*
Salvatore DiMauro (Lucy G. Moses Professor). *M.D., Padova (Italy), 1963*
Stanley Fahn (H. Houston Merritt Professor). *B.A., California (Berkeley), 1955; M.D., California (San Francisco), 1958*
Claude P. J. Ghez (also Physiology & Cellular Biophysics) (in the Center for Neurobiology & Behavior). *B.S., Geneva, 1960; M.D., Harvard, 1964*
William Allen Hauser (also Public Health) (Epidemiology) (in the Sergievsky Center). *B.A., Case Western Reserve, 1958; M.D., St. Louis, 1962*
Arthur Karlin (Eugene Higgins Professor of Neurology) (also Biochemistry & Molecular Biophysics and Physiology & Cellular Biophysics). *B.A., Swarthmore, 1957; Ph.D., Rockefeller, 1962*
Robert E. Lovelace. *B.S., London, 1953; M.R.C.P., 1958*
Richard P. Mayeux (Gertrude H. Sergievsky Professor of Neurology) (also Psychiatry). *B.S., Oklahoma State, 1968; M.D., 1972*
Jay P. Mohr (Daniel Sciarra Professor). *B.A., Haverford, 1958; M.S., M.D., Virginia, 1963*
Audrey S. Penn. *B.A., Swarthmore, 1956; M.D., Columbia, 1960*
James H. Schwartz (also Physiology & Cellular Biophysics) (in the Center for Neurobiology & Behavior and Psychiatry). *B.A., Columbia, 1954; M.D., New York University, 1959; Ph.D., Rockefeller, 1964*

Adjunct Professor

Roger Traub. *B.A., Princeton, 1967; M.D., Pennsylvania, 1972*

Professors of Clinical Neurology

Eduardo Bonilla (also Pathology). *B.A., San Simon (Bolivia), 1957; M.D., Javerina (Bogota), 1964*
Arnold P. Gold (also Pediatrics). *B.A., Texas, 1947; M.S., Florida, 1949; M.D., Lausanne, 1950*
James H. Halsey. *B.A., Bridgeport, 1955; M.D., Yale, 1959*
Timothy A. Pedley. *B.A., Pomona, 1965; M.D., Yale, 1969*
Daniel Sciarra. *B.A., Harvard, 1940; M.D., 1943*

Professor of Clinical Neuropsychology

Nancy Sabin Wexler (in Psychiatry). *B.A., Radcliffe, 1967; Ph.D., Michigan, 1970*

Professor of Clinical Psychiatric Social Work

Janet B. Williams (in Psychiatry). *B.S., Tufts, 1969; M.S., Columbia, 1974; D.S.W., 1981*

Clinical Professors

Robert E. Barrett. *B.A., William & Mary, 1953; M.D., Medical College of Virginia, 1957*
Robert A. DeNapoli. *M.D., Harvard, 1954*
Linda D. Lewis. *B.S., Bethany, 1961; M.D., West Virginia, 1965*
Joseph L. O'Brien. *M.D., Cornell, 1950*

Associate Professors

Lucien J. Cote (also Rehabilitation Medicine). *B.S., Vermont, 1951; M.D., 1954*
Norman Latov. *B.A., Columbia, 1970; M.D., Ph.D., Pennsylvania, 1975*

Associate Professor of Genetics & Development

Eric A. Schon. *B.S., Columbia, 1968; M.S., Cincinnati, 1973; Ph.D., 1982*

Associate Professors of Clinical Neurology

Gary Abrams. *B.S., State University of New York (Buffalo), 1970; M.D., Pittsburgh, 1974*
Susan B. Bressman. *B.A., Barnard, 1973; M.D., Columbia, 1977*
Robert Burke. *B.A., Dartmouth, 1971; M.D., Cornell, 1975*
Ronald G. Emerson (also Pediatrics). *B.S., Bates, 1971; M.D., New York University, 1975*
Mathew E. Fink (in Neurological Surgery). *B.A., Pennsylvania, 1972; M.D., Pittsburgh, 1976*
Dale Joseph Lange. *B.S., Siena (Loudonville, NY), 1974; M.D., New York Medical College, 1978*
James R. Miller. *B.A., Amherst, 1960; M.D., New York University, 1964*

Associate Professors of Clinical Neuropsychology

Isak Prohovnik (in Psychiatry and Radiology). *M.Sc., Lund (Sweden), 1980; Ph.D., 1981*
Yaakov Stern (in Psychiatry and Sergievsky Center). *B.A., Touro College, 1975; M.A., City University of New York, 1982; Ph.D., 1983*

Associate Clinical Professors

Michael Fetell. *B.A., Pennsylvania, 1967; M.D., Albert Einstein, 1972*
Marcelo R. Olarte. *B.S., Marist, 1962; M.D., Cuyo, 1970*
David L. Sagman. *A.B., Hamilton, 1955; M.D., Virginia, 1959*
Stephen G. Shafer (in the Sergievsky Center). *B.A., Harvard, 1966; M.D., Columbia, 1970; M.P.H., 1977*
Joseph H. Willner. *B.A., Hamilton College, 1966; M.D., New York University, 1970*

Research Scientist

Sara Shanske. *B.A., California (Los Angeles), 1967; Ph.D., Albert Einstein, 1977*

Assistant Professors

Mitchell F. Brin. *B.A., Pennsylvania, 1975; M.D., Columbia, 1979*
Claudia Chiriboga-Klein (also Pediatrics). *M.D., National University of Buenos Aires (Argentina), 1982*
Paul Greene. *B.S., Massachusetts Institute of Technology, 1967; M.S., Yale, 1975; M.D., Connecticut, 1980*
Joseph Herbert (also Pathology) (Neuropathology). *B.S., Hebrew (Jerusalem), 1971; M.D., 1975*
Eric J. Heyer (also Anesthesiology). *B.S., Chicago, 1968; M.D., Ph.D., Albert Einstein, 1975*
Michio Hirano. *B.A., Harvard, 1982; M.D., Albert Einstein, 1986*
Michael P. King. *B.A., Johns Hopkins, 1981; Ph.D., California Institute of Technology, 1987*
Louise M. Klebanoff. *B.A., Pennsylvania, 1980; M.D., Georgetown, 1984*
Karen S. Marder (in the Sergievsky Center). *A.B., Cornell, 1979; M.D., 1983*
Douglas R. Nordli, Jr. (also Pediatrics). *B.A., Haverford, 1980; M.D., Columbia, 1984*
Torbjoern G. Nygaard. *B.S., Worcester Polytechnic Institute, 1975; M.D., Case Western Reserve, 1980*
Serge Przedborski. *B.S., St. Exupery (France), 1976; M.D., Libre de Bruxelles (Belgium), 1983*
Seth Pullman. *B.S., McGill, 1975; M.D., 1979*

Ralph Sacco (also Public Health) (Epidemiology) (in the Sergievsky Center). *B.S., Cornell, 1979; M.D., Boston, 1983*
Saud A. Sadiq. *M.B.,Ch.B., Nairobi (Kenya), 1979*
Mark L. Scheuer (Herbert & Florence Irving Assistant Professor). *B.S., Pennsylvania, 1978; M.D., Chicago, 1983*
Thomas K. Tatemichi. *B.A., Brown, 1974; M.D., Cornell, 1978*
Rosario R. Trifiletti (Herbert & Florence Irving Assistant Professor) (also Pediatrics). *B.S., Seton Hall, 1979; M.D., Ph.D., Johns Hopkins, 1986*
Thaddeus S. Walczak. *B.S., Northwestern, 1978; M.D., 1982*
Kirk C. Wilhelmsen (Herbert & Florence Irving Assistant Professor). *B.S., California (San Diego), 1978; Ph.D., Wisconsin (Madison), 1984; M.D., 1986*

Assistant Professor of Medical Informatics

Barry A. Allen. *B.A., California, 1971; Ph.D., 1985*

Assistant Professor of Neuropathology

Ruth M. Gubits. *M.S., Albert Einstein, 1978; Ph.D., 1982*

Assistant Professor of Neuropsychology

Mary Sano. *B.S., Amherst, 1974; M.A., New York University, 1980; Ph.D., 1986*

Assistant Professors of Clinical Neurology

Carolyn B. Britton. *B.A., Oberlin, 1965; M.S., M.D., New York University, 1975*
Ramamohana R. Kairam (also Pediatrics). *M.B.,B.S., Andhra Medical College (India), 1979*
Laura Lenihan. *B.A., Harvard, 1974; M.D., Cornell, 1978*
Stanley R. Resor, Jr. *B.A., Yale, 1967; M.D., Columbia, 1972*
Glenn M. Seliger. *B.S., Brooklyn, 1979; M.D., State University of New York (Downstate), 1983*

Assistant Professors of Clinical Neuropsychology

David W. Desmond. *A.B., Chicago, 1982; M.A., Fordham, 1984; Ph.D., 1990*
Marcus Richards (in Sergievsky Center). *B.A., Oxford (Pembroke), 1981; Ph.D., London, 1989*

Assistant Clinical Professors

Frank Boschenstein. *B.A., Toronto, 1950; M.D., 1954*
Ann Camac. *B.A., Cornell, 1978; M.D., Rochester (New York), 1985*
Eugenia T. Gamboa. *B.A., Philippines, 1961; M.D., 1966*
Stanley B. Holstein. *B.S., George Washington, 1963; M.D., Georgetown, 1967*
Neil Lombardi (also Pediatrics). *B.A., M.D., Boston, 1967*
Charles R. Plank. *B.A., Oklahoma, 1961; M.D., 1965*
Aaron Rabin. *B.A., Yeshiva, 1967; Ph.D., Rockefeller, 1974; M.D., Albert Einstein, 1976*
Jay E. Selman. *B.A., Washington, 1967; M.S., 1967; M.D., Southwestern, 1973*
Ariel A. Sherbany. *B.S., State University of New York (Stony Brook), 1972; M.D., New York University 1979; Ph.D., 1982*

Associate Research Scientists

Mercy Mascreen Davidson. *B.S., Madras (India), 1968; M.S., 1970; Ph.D., 1979*
Marla Hamberger. *B.S., Cornell, 1984; M. Phil., City University of New York, 1991; Ph.D., 1992*
Grace Lee. *B.S., Illinois Institute of Technology, 1970; M.S., Oklahoma, 1985; Ph.D., 1988*
Ali B. Naini. *B.S., Food & Nutrition Institute of Iran, 1967; M.S., London (England), 1971; Ph.D., Surrey (England), 1978*
Ming Xin Tang (also Sergievsky Center). *M.A., Hunter, 1985; M.Phil., Columbia, 1989; Ph.D., 1990*

SPECIAL LECTURER
James F. Hammill, M.D.

LECTURER
Robert E. McMasters, M.D.

ASSOCIATES IN CLINICAL NEUROLOGY
Sidney M. Cohen, M.D.
Stephen Carl Klass, M.D.
Heidi Shale, M.D.

INSTRUCTOR IN CLINICAL NEUROLOGY
Damon M. Fellman, M.D.

At Mary Imogene Bassett Hospital

Associate Clinical Professor

Lewis L. Hamilton. *B.S., Yale, 1960; M.D., Columbia, 1964*

Assistant Clinical Professors

Paul M. Deringer. *B.A., Columbia, 1971; M.D., 1975*
Mary Ann Whelan. *B.A., Radcliffe, 1961; M.A., Harvard, 1969; Ph.D., 1972; M.D., Dartmouth, 1976*

At Harlem Hospital Center

Professor of Clinical Neurology

John C. M. Brust, Jr. *B.A., Harvard, 1958; M.D., Columbia, 1962*

Associate Professor of Clinical Neurology

Edward B. Healton. *B.S., Oregon, 1964; M.D., Creighton, 1968*

Associate Clinical Professor

Alfred C. Bannerman. *B.S., Edinburgh, 1963; M.B.,Ch.B., 1966*

Assistant Professor

David S. Younger. *B.S., Michigan, 1976; M.D., Columbia, 1981*

Assistant Clinical Professor

Renee Malouf. *B.A., Hunter, 1956; M.D., State University of New York (Downstate), 1960*

INSTRUCTOR IN CLINICAL NEUROLOGY
Rafael Borras, M.D.

At Helen Hayes Hospital

Associate Professor of Clinical Neuropharmacology

Robert S. Sloviter. *B.S., Drexel, 1973; Ph.D., Pennsylvania State, 1978*

Assistant Professor of Clinical Neuropharmacology

Helen E. Scharfman. *B.A., Vassar, 1981; Ph.D., Uniformed Services (Bethesda) 1986*

At St. Luke's-Roosevelt Hospital Center

Clinical Professor

Carl W. Braun. *B.A., Harvard, 1958; M.D., Pennsylvania, 1962*

ASSOCIATE IN CLINICAL NEUROLOGY

Maureen S. Cafferty, M.D.

Obstetrics and Gynecology

Professor of Clinical Obstetrics & Gynecology and Acting Chairman

Harold E. Fox (also Pediatrics). *M.S., Rochester and Oxford, 1972; M.D., Rochester, 1972*

At Presbyterian Hospital

Professors

Mieczyslaw Finster (also Anesthesiology). *B.A., Gymnasium (Poland), 1941; M.D., Geneva, 1957*

Georgiana Jagiello (Virgil G. Damon Professor) (also Genetics & Development) (in the Center for Reproductive Sciences). *B.A., Boston, 1949; M.D., Tufts, 1955*

Allan G. Rosenfield (also Joseph Delamar Professor of Public Health) (in the Center for Population & Family Health). *B.A., Harvard, 1955; M.D., Columbia, 1959*

Professor of Anesthesiology

Hisayo Morishima. *M.D., Toho (Tokyo), 1951; Ph.D., 1960*

Professor of Pediatrics

Raymond L. Stark (Perinatology) (in Obstetrics & Gynecology). *B.A., Columbia, 1962; M.D., 1971*

Professor of Pathology

Ralph M. Richart. *B.A., Johns Hopkins, 1954; M.D., Rochester, 1958*

Professor of Physiology & Cellular Biophysics

Michel Ferin (in the Center for Reproductive Sciences). *M.D., Louvain, 1964*

Professors of Clinical Obstetrics & Gynecology

Laxmi Baxi. *M.D., Seth G.S. Medical College (Bombay), 1962*

Edward T. Bowe. *B.S., Columbia, 1957; M.D., 1961*

M. Leon Tancer. *B.S., New York University, 1936; M.D., 1940*

Ilan E. Timor. *M.D., Hebrew (Israel), 1963*

Sterling B. Williams. *M.S., Northern Illinois, 1966; M.D., Arkansas, 1973*

Clinical Professors

Richard U. Levine. *B.S., Tufts, 1962; M.D., Cornell, 1966*
Raymond M. McCaffrey. *B.A., Fordham, 1954; M.D., Cornell, 1958*
Wolfgang Tretter. *M.D., Heidelberg, 1952*
Ming Yeh. *M.D., National Taiwan, 1964*

Associate Professor of Genetics & Development

Debra Wolgemuth (in the Center for Reproductive Sciences and Obstetrics & Gynecology). *B.A., Gettysburg, 1969; M.A., Vanderbilt, 1971; M.Phil., Columbia, 1975; Ph.D., 1977*

Associate Professors of Clinical Obstetrics & Gynecology

Bruce A. Barron. *B.A., Allegheny, 1955; Ph.D., Yale, 1965; M.D., New York University, 1971*
Wylie C. Hembree, III (also Medicine). *B.A., Vanderbilt, 1960; M.D., Washington (St. Louis), 1964*
Amalia C. Kelly. *B.A., Bard, 1975; M.D., Tufts, 1979*
Daniel H. Smith (Oncology) (also Surgery). *M.D., Harvard, 1972*

Associate Professor of Clinical Public Health

Wendy Chavkin (Population & Family Health) (in Obstetrics & Gynecology). *B.A., Michigan (Ann Arbor), 1973; M.D., State University of New York (Stony Brook), 1978; M.P.H., Columbia, 1980*

Associate Clinical Professors

Vincent J. Freda. *B.A., Columbia, 1948; M.D., New York University, 1952*
Ralph J. Hessekiel. *B.S., Queens, 1950; M.D., State University of New York (Downstate), 1954*
Nabil Wafik Husami. *B.S., American University of Beirut, 1968; M.D., 1972*

Assistant Professors

Stephen A. Brown. *B.A., Chicago, 1980; M.D., 1984*
Conrad R. Chao. *B.A., Wesleyan, 1978; M.D., 1982*
Edward C. Ditkoff. *B.S., Emory, 1981; M.D., Chicago, 1985*
Daniel M. Lasser. *B.A., Pennsylvania, 1981; M.D., Mt. Sinai, 1985*
David B. Peisner. *B.S., California Institute of Technology, 1974; M.D., Wayne State, 1978*
Mary L. Reuss (in the Sergievsky Center). *B.S., Pennsylvania, 1973; M.D., Thomas Jefferson, 1978*
Wendy Warren. *B.A., Wellesley, 1978; M.D., Cornell, 1982*
Carolyn L. Westhoff. *B.S., Michigan, 1972; M.D., 1977*

Assistant Professors of Biochemistry & Molecular Biophysics

Richard K. Assoian (in the Center for Reproductive Sciences). *B.A., Johns Hopkins, 1975; Ph.D., Chicago, 1981*
Richard S. Mann (in the Center for Reproductive Sciences). *B.S., Cornell, 1980; Ph.D., Massachusetts Institute of Technology, 1986*

Assistant Professor of Pathology

Jan K. Kitajewski (in the Center for Reproductive Sciences). *B.A., California (Berkeley). 1981; Ph.D., Princeton, 1987*

Assistant Professors of Clinical Obstetrics & Gynecology

Jody S. Blanco. *B.S., Cornell, 1977; M.D., State University of New York (Upstate), 1981*
Hilda Yvonne Hutcherson. *B.A., Stanford, 1976; M.D., Harvard, 1980*
John P. Koulos. *B.S., Northwestern, 1974; M.D., 1978*
Andrew L. Loucopoulos. *M.D., Athens, 1970*
Frances Marks. *B.S., Fairleigh Dickinson, 1978; M.D., Columbia, 1982*
Cristina Matera-Abouzahr. *B.S., Boston, 1982; M.D., New York University, 1986*
Ana Monteagudo. *B.S., City University of New York, 1978; M.D., Albert Einstein, 1982*
Sharon L. Patrick. *B.A., Wooster (Ohio), 1982; M.D., Case Western Reserve, 1986*

Assistant Clinical Professors

Fred A. Avila. *M.D., Santo Domingo, 1969*
Valerie Burke. *B.A., Barnard, 1977; M.D., Mt. Sinai, 1981*
Frederick S. Clare. *B.A., McGill, 1968; M.B.,B.S., West Indies (Jamaica), 1973*
Maritza Cruz. *M.D., Harvard, 1983*
Eileen F. Demarco. *B.A., Cornell, 1982; M.D., New York University, 1986*
Reinaldo Figueroa. *B.A., Cornell, 1977; M.D., Universidad Del Caribe (Puerto Rico), 1981*
Frederick A. Gonzalez. *B.S., Boston, 1972; M.D., Columbia, 1976*
Robert A. Hadden. *B.A., Skidmore, 1980; M.D., New York Medical College, 1987*
Coleman Henley, Jr. *B.A., State University of New York (Buffalo), 1966; M.D., Howard, 1970*
Claudia Holland. *B.A., Harvard, 1977; M.D., Mt. Sinai, 1981*
Sarah H. Kelly. *B.A., Miami, 1970; M.A., Indiana, 1971; M.S., M.D., 1978*
Anita Parnes La Sala. *B.A., Radcliffe, 1976; M.D., Columbia, 1980*
Jodi P. Lerner. *B.A., Lehigh, 1982; M.D., Pennsylvania, 1986*
Bernard L. Lieberman. *B.A., Brooklyn, 1956; M.D., State University of New York (Downstate), 1961*
Juan S. Lopez. *B.S., Ulises Espaillat College (Dominican Republic), 1954; M.D., Autonomous (Santo Domingo), 1962*
Dorcas C. Morgan. *B.A., Brooklyn, 1981; M.D., Michigan State, 1986*
Nooria Rahmanie. *M.D., Kabul (Afghanistan), 1971*
Paula A. Randolph. *B.S., Howard (Cambridge), 1979; M.D., Columbia, 1983*
Kevin B. Reilly. *B.A., Manhattan, 1966; M.D., State University of New York (Downstate), 1970*
Thomas D. Y. Shin. *B.A., Columbia, 1984; M.D., New York University, 1988*
Barbara A. Stricker. *B.A., State University of New York (Stony Brook), 1984; M.D., 1988*
Rafael A. Tejeda. *B.S., Santo Domingo, 1955; M.D., 1962*
Jose F. Torres. *B.S., Lyceum, Jose Joaquin Perez (Santo Domingo), 1945; M.D., Santo Domingo, 1951*
Christina Ruegsegger Veit. *B.S., Simmons, 1975; M.D., Zurich Medical School (Switzerland), 1981*

Associate Research Scientists

Rajesh Miranda. *B.A., St. Xaviers's (Bombay, India), 1982; M.A., Bombay (India), 1984; M.S., Roschester (New York), 1988; Ph.D., 1989*
Henry R. Rey. *M.S., Columbia, 1971*
Axel G. Wadewitz. *B.S., St. John's, 1980; Ph.D., 1987*

SPECIAL LECTURERS

L. Stanley James, M.D.
Seymour Lieberman, Ph.D.
David B. Moore, M.D.

LECTURERS

Saul Bilik, M.D.
Arnold N. Fenton, M.D.
Raphael Jewelewicz, M.D.
Umadevi Tantravahi, Ph.D.

INSTRUCTORS IN CLINICAL OBSTETRICS & GYNECOLOGY

Janis Enzenbacher, M.D.
Unjeria C. Jackson, M.D.
Leonardo J. Yunis, M.D.

At Mary Imogene Bassett Hospital

Assistant Clinical Professors

Mark Elliott Heller. *B.A., Lehigh, 1969; M.D., State University of New York (Buffalo), 1973*
Balazs Selendy. *M.D., Louvain (Belgium), 1964*

At Harlem Hospital Center

Associate Professor of Clinical Obstetrics & Gynecology

Hiroko T. Felton. *M.D., Kansai (Japan), 1955*

Associate Clinical Professor

Stephen L. Matseoane. *B.S., Fort Hare (South Africa), 1954; M.D., Witwatersrand (South Africa), 1959*

Assistant Professors of Clinical Obstetrics & Gynecology

Sunthorn Bunyaviroch. *B.S., Chulalongkorn (Thailand), 1960; M.D., Siriraj, 1964*
Nomenida A. Lazaro. *B.S., Santo Tomas (Philippines), 1960; M.D., 1965*
Janet L. Mitchell. *B.A., Mt. Holyoke, 1972; M.D., Howard, 1976; M.P.H., Harvard, 1987*
Esther S. Suarez. *A.A., Santo Tomas (Philippines), 1955; M.D., 1960*
Alfred J. Williams. *B.A., Howard, 1960; M.D., Meharry, 1964*

Assistant Clinical Professors

Hasi Das. *M.B.,B.S., Calcutta (India), 1964*
Clyde C. Freeman. *B.S., Washington, 1959; M.D., Howard, 1964*
Istvan P. Tornai. *M.D., Medical Sciences University (Hungary), 1955*
Pisan Unchalipongse. *M.D., Chiengma Medical School (Thailand), 1965*

INSTRUCTORS IN CLINICAL OBSTETRICS & GYNECOLOGY

Diane M. Ashton, M.D.
Kwadwo Boakye, M.D.
Sitaram Vithal Chitnis, M.D.
Jennifer Corbitt-Freeman, M.D.
Barbara Lanzara, M.D.
Violeta Valdez, M.D.
Deborah White, M.D.

At Morristown Memorial Hospital

Associate Professor of Clinical Obstetrics & Gynecology

Abraham Risk. *M.D., Dalhousie, 1957; M.P.H., Johns Hopkins, 1969*

At St. Luke's-Roosevelt Hospital Center

Professor

Robert S. Neuwirth (Dorothy B. Babcock Professor). *B.S., Yale, 1955; M.D., 1958*

Associate Professor of Clinical Obstetrics & Gynecology

Michelle P. Warren (also Medicine). *B.A., Mount Holyoke, 1961; M.D., Cornell, 1965*

Associate Clinical Professor

Maureen Killackey. *B.A., Barnard, 1974; M.D., Cornell, 1978*
Haider Hussein Shamsi. *M.B.,B.S., King Edward Medical College (Pakistan), 1965*

Assistant Professor

Amos Grunebaum. *M.D., Cologne, 1975*

Assistant Professor of Clinical Obstetrics & Gynecology

Terusada Horiguchi. *M.D., Keio (Tokyo), 1961*

Assistant Clinical Professors

David B. Crawford. *B.S., North Carolina, 1943; M.D., New York University, 1946*
Ivan J. Jacobson. *B.A., Belgrade (Yugoslavia), 1948; M.D., 1955*
Gyula Nemes. *B.A., Gymnasium Szekesfehervar, 1946; M.D., Budapest, 1954*
Ian G. Van Praagh. *M.D., Toronto, 1955*
Riley W. Waller. *B.S., LeMoyne, 1943; M.D., Howard, 1947*

LECTURERS

Charles H. Debrovner, M.D.
Richard A. Ruskin, M.D.

ASSOCIATES IN CLINICAL OBSTETRICS & GYNECOLOGY

Dov B. S. Goldstein, M.D.
Bernardo Handszer-Guss, M.D.

INSTRUCTORS IN CLINICAL OBSTETRICS & GYNECOLOGY

Nargess Ahgharian, M.D.
Howard Balick, M.D.
Ronald D. Blatt, M.D.
Felipe Bozzo, M.D.
Satwant Kaur Dhamoon, M.R.C.O.G.
Susan L. Grant, M.D.
Amtul R. Hussein, M.D.
Joseph Iwanicki, M.D.
Juanita Jenyon, M.D.
Lawrence D. Kramer, M.D.
Olivia Lermand, M.D.
Leon Lewenstein, M.D.
Ellen Manos, M.D.
Karlheinz Moehlen, M.D.
Lillian D. Nash, M.D.
Benu Pascariu, M.D.
Jaana V. Rehnstrom-Blane, M.D.
Ronald J. Reiss, M.D.
Irving Ward Robinson, M.D.
Arnold Roufa, M.D.
Peter S. Sailon, M.D.
Claudia A. Useda, M.D.
Mary E. Wilson, M.D.

Ophthalmology

Edward S. Harkness Professor and Chairman

Anthony Donn. *B.S., Yale, 1947; M.D., Columbia, 1952*

At Presbyterian Hospital

Professor

Peter Gouras. *B.A., Johns Hopkins, 1951; M.D., 1955*

Professor of Ocular Physiology

Laszlo Z. Bito. *B.A., Bard, 1959; Ph.D., Columbia, 1963*

Professors of Ophthalmic Biochemistry

Durga K. Bhuyan. *B.S., Bombay (India), 1951; M.S., 1954; Ph.D., 1962*
Kailash C. Bhuyan. *M.B.,B.S., Assam (India), 1965*
Joan E. Roberts. *B.S., Manhattan, 1965; Ph.D., St. Johns, 1971*
Abraham Spector. *Ph.D., New York University, 1957*

Professor of Physiology & Cellular Biophysics

Jorge Fischbarg. *M.D., Buenos Aires, 1962; Ph.D., Chicago, 1971*

Professor of Radiation Biology

Basil V. Worgul. *B.S., Miami, 1969; Ph.D., Vermont, 1974*

Adjunct Professor of Ophthalmic Research

Rangaswamy Srinivasan. *B.S., Madras (India), 1949; M.S., 1950; Ph.D., Southern California, 1956*

Professors of Clinical Ophthalmology

Myles M. Behrens. *B.A., Yale, 1958; M.D., Columbia, 1962*
Max Forbes. *B.A., Cornell, 1951; M.D., Chicago, 1957*
Francis A. L'Esperance, Jr. *B.A., Dartmouth, 1952; M.D., Harvard, 1956*
Harold F. Spalter. *B.A., Brown, 1951; M.D., Columbia, 1955*
B. Dobli Srinivasan. *Ph.D., Columbia, 1964; M.D., 1967*
Stephen Trokel. *B.A., Cornell, 1954; M.S., Rochester, 1956; M.D., 1959; Med.Sc.D., Columbia, 1965*

Clinical Professors

Richard W. Darrell. *B.A., Harvard, 1955; M.D., 1959; Med.Sc.D., Columbia, 1965*
John W. Espy. *B.S., Franklin and Marshall, 1953; M.D., Cornell, 1956*

Associate Professor

Hermann D. Schubert (also Pathology). *M.D., Dusseldorf (West Germany), 1974*

Associate Professors of Clinical Ophthalmology

Howard M. Eggers. *B.A., Columbia, 1967; M.D., 1971*
Sally Moore (Orthoptics). *B.S., Delaware, 1952; Orthoptics Certificate, 1965*
Emil Wirostko. *B.S., Fordham, 1956; M.D., Cornell, 1960; Med.Sc.D., Columbia, 1967*
Lawrence Yannuzzi. *B.A., Harvard, 1959; M.D., Boston, 1964*

Associate Clinical Professors

Jack M. Dodick. *M.D., Toronto, 1963*
Frank B. Hoefle. *B.A., Dartmouth, 1957; M.D., Harvard, 1961*

Albert J. Hofeldt. *B.S., Portland State, 1965; M.D., Oregon, 1969*
George M. Howard. *B.A., Dartmouth, 1952; M.D., State University of New York (Albany), 1959*
R. David Sudarsky. *B.S., Yale, 1946; M.D., 1949*
Arnold I. Turtz. *M.D., New York University, 1948*

Research Scientist

James P. Dillon. *B.S., Canisious, 1964; M.S., Columbia, 1973; Ph.D., 1974*

Assistant Professors

Raul Oscar Chiesa. *B.S., Instituto Alberto Brause (Uruguay), 1971; M.D., Universidad de las Republica (Uruguay), 1980*
Larry Liebovitch. *B.S., City College of New York, 1972; M.A., Harvard, 1973; Ph.D., 1978*

Assistant Professor of Ophthalmic Biochemistry

Norman J. Kleinman. *B.S., Rensselear Polytechnic Institute, 1979; M.S., Vanderbilt, 1982; Ph.D., 1985*

Assistant Professors of Clinical Ophthalmology

Lisa G. Barbera. *B.S., Vassar, 1972; M.D., Columbia, 1976*
Arthur M. Cotliar. *B.A., Yeshiva, 1974; M.D., Albert Einstein, 1977*
*George J. Florakis. *B.A., Columbia, 1979; M.D., 1983*
Pamela Frances Gallin. *A.B., B.S., Washington, 1974; M.D., 1978*
*Michael Kazim (also Surgery). *B.A., Columbia, 1980; M.D., 1984*
Cynthia J. Mackay. *B.A., Harvard, 1964; M.D., State University of New York (Downstate), 1977*
Jeffrey G. Odel. *B.A., Hunter, 1971; M.D., Rochester, 1975*
R. Theodore Smith. *B.A. Rice (Houston) 1969; M.S. Warwick (Coventry, England), 1970; Ph.D., 1972; M.D., Albert Einstein, 1981*
Michael J. Weiss. *B.S., Bar-Ilan (Tel-Aviv, Israel), 1972; Ph.D., Columbia, 1976; M.D., 1981*

Assistant Clinical Professors

Yale L. Fisher. *B.A., Cornell, 1964; M.D., 1967*
William James, Jr. *B.A., Princeton, 1960; M.D., Columbia, 1965*
Martin E. Lederman. *B.A., Brooklyn, 1960; M.D., Albert Einstein, 1964*
Martin L. Leib. *B.S., Yeshiva, 1969; M.D., New York Medical College, 1974*
Robert Lopez. *B.A.,B.S., California (Irvine), 1978; M.D., Harvard, 1982*
John Carlson Merriam. *B.A., Harvard, 1971; M.D., 1977*
Rainer N. Mittl. *M.D., Munich, 1964*
Hugh M. Moss. *B.A., Harvard, 1952; M.D., Pennsylvania, 1954*
Louis D. Pizzarello (also Public Health). *B.A., Colgate, 1971; M.P.H., Harvard, 1974; M.D., Virginia, 1975*

Associate Research Scientists

Patricia A. Burke. *Ph.D., College of Medicine and Dentistry of New Jersey, 1983; M.D., 1986*
Shonit R. Das. *M.S., Assam (India), 1974; Ph.D., 1980*
Dean E. Hart. *B.S., New York Institute of Technology, 1981; M.A., Hofstra, 1983; O.D., State University of New York, 1987*
Pavel Iserovich. *M.S., Kharkov (Russia), 1975; Ph.D., Moscow (Russia), 1988*
Jan Koniarek. *B.S., Manhattan College, 1971; M.E., New York University, 1973; M.A., 1975; Ph.D., 1979*

Kun-Yan Kuang. *M.D., Gaungzhou (China), 1968*
Lu-ku Li. *B.S., National University of Taiwan, 1958; Ph.D., Princeton, 1964*
Marcelo E. Vazquez. *M.D., La Plata National (Argentina), 1984; Ph.D., 1990*
Scott S. Weissman. *B.S., State University of New York (Stony Brook), 1979; M.D., Albert Einstein, 1983*
Shuichi Yamamoto. *M.D., Chiba (Japan), 1983*

SPECIAL LECTURERS

Frank D. Carroll, M.D.
Ira S. Jones, M.D.
Charles J. Koester, Ph.D.
Wladyslaw Manski, D.S.
George R. Merriam, M.D.

LECTURER

Gerald Weinstein, M.D.

ASSOCIATES IN CLINICAL OPHTHALMOLOGY

James D. Auran, M.D.
Daniel S. Casper, M.D., Ph.D.
Stephen Doro, M.D.
Donald H. Green, M.D.
Lawrence G. Pape, M.D.
Jaime Santamaria, II, M.D.

INSTRUCTORS IN CLINICAL OPHTHALMOLOGY

Barry G. Chaiken, M.D.
Paul Frank, M.D.
B. David Gorman, M.D.
Jeffrey M. Josef, M.D.
John S. Kim, M.D.
Peter Michalos, M.D.
Marc G. Odrich, M.D.
Gloria Paoli, M.D.
Phyllis E. Weingarten, M.D.

At Mary Imogene Bassett Hospital

Assistant Clinical Professor

Charles B. Deichman. *B.A., Massachusetts, 1963; M.D., State University of New York (Albany), 1969*

INSTRUCTORS IN CLINICAL OPHTHALMOLOGY

Paul M. Beer, M.D.
Irene H. Ludwig, M.D.

At Harlem Hospital Center

Professor of Clinical Ophthalmology

R. Linsy Farris. *M.D., Duke, 1961*

Assistant Professor of Clinical Ophthalmology

Herman C. Jordan. *B.A., Colgate, 1954; M.D., Howard, 1964*

Assistant Clinical Professors

Rajendra K. Bansal. *M.B.,B.S., Delhi (India), 1967; M.S., 1967*
Ram P. Tiwari. *B.S., Agra (India), 1961; M.B.,B.S., Delhi (India), 1966; M.S., 1970*

ASSOCIATES IN CLINICAL OPHTHALMOLOGY

Milton Delerme, M.D.
Antonio M. Gonzales, M.D.
John P. Mitchell, M.D.
Cambiz T. Moazed, M.D.

INSTRUCTORS IN CLINICAL OPHTHALMOLOGY

Sandra Comerie-Smith, M.B.,B.S.
Frantz Lerebours, M.D.
Christopher A. Rice, M.D.

At St. Luke's-Roosevelt Hospital Center

Associate Clinical Professor

James C. Newton. *B.S., Fordham, 1949; Ph.D., 1953; M.D., Jefferson, 1957*

Assistant Clinical Professor

Chin Wing Chu. *B.A., Yale, 1968; M.D., State University of New York (Downstate), 1972*

ASSOCIATES IN CLINICAL OPHTHALMOLOGY

Alan Charles Brown, M.D.
Charles Merker, M.D.

INSTRUCTORS IN CLINICAL OPHTHALMOLOGY

Louis V. Angioletti, Jr., M.D.
Ulises Arango, M.D.
Robert C. Del la Rocca, M.D.
Bernard J. Fowler, M.D.
Dennis Freilich, M.D.
Bruce M. Hyman, M.D.
Richard D. Lester, M.D.
Kenneth E. Merhige, M.D.
Robert P. Newhouse, M.D.
Satya D. Paul, M.D.
Rochelle L. Peck, M.D.
Steven M. Plotycia, M.D.
Chalermpong Sarakhun, M.D.
Celeste Schmucker-Karpow, M.D.
John R. Stabile, M.D.
Richard T. Sturm, M.D.
George Traykovski, M.D.
Howard K. Weisberg, M.D.

Orthopedic Surgery

Frank E. Stinchfield Professor and Chairman

Harold M. Dick. *B.A., Princeton, 1956; M.D., New York University, 1960*

At Presbyterian Hospital

Professors of Mechanical Engineering and Orthopedic Bioengineering

Michael W. Lai. *B.S., National Taiwan University, 1953; M.S., Michigan, 1959; Ph.D., 1962*
Van C. Mow. *B.A.E., Rensselaer Polytechnic Institute, 1962; Ph.D., 1966*

Professors of Clinical Orthopedic Surgery

Nas Ser Eftekhar. *M.D., Teheran, 1960*
S. Ashby Grantham. *B.A., Washington (St. Louis), 1952; M.D., 1955*

Clinical Professor

Norman A. Hill. *A.B., Princeton, 1949; M.D., Columbia, 1953*

Associate Professor of Orthopedic Biochemistry

Anthony Ratcliffe. *B.S., Birmingham (England), 1977; Ph.D., 1980*

Associate Professors of Clinical Orthopedic Surgery

Louis U. Bigliani. *B.A., Holy Cross, 1968; M.D., Loyola, 1972*
Hugo A. Keim. *B.S., St. Mary's (Minnesota), 1956; M.D., Loyola, 1960; M.S., Northwestern, 1966*
Christopher B. Michelsen. *B.A., Bowdoin, 1961; M.D., Columbia,1969*
David Price Roye, Jr. *B.A., Oklahoma, 1971; M.D., Columbia, 1975*

Associate Clinical Professors

David L. Andrews. *B.A., Williams, 1952; M.D., Columbia, 1956*
Jean-Pierre C. Farcy. *M.D., Aix-Marseille, 1972*
Stephen J. Mc Ilveen. *B.S., Fairleigh Dickinson, 1969; M.D., New York University, 1973*

Assistant Professors

Gail S. Chorney. *B.A., Smith, 1974; M.D., Boston, 1978*
Evan L. Flatow. *B.A., Princeton, 1977; M.D., Columbia, 1981*
Ronald P. Grelsamer. *B.S., B.A., Brown, 1975; M.D., Columbia, 1979*
Ohannes A. Nercessian. *B.S., Lehman, 1977; M.D., Columbia, 1981*
Roger G. Pollock. *B.A., Yale, 1981; M.D., Columbia, 1985*
Melvin P. Rosenwasser. *B.A., Johns Hopkins, 1972; M.D., Columbia, 1976*
Robert J. Strauch. *B.A., Columbia, 1982; M.D., 1986*

Adjunct Assistant Professor

Stuart J. Hershon. *A.B., Harvard, 1959; M.D., New York Medical College, 1963*

Assistant Professors of Clinical Orthopedic Surgery

John W. Carmody. *B.A., Fordham, 1972; M.D., New York Medical College, 1976*
Armen C. Haig. *B.A., Columbia, 1952; M.D., Yale, 1965*
Howard A. Kiernan, Jr. *B.S., Holy Cross, 1962; M.D., New York University, 1966*
Bruce L. Sprague. *B.A., Princeton, 1960; M.D., Pennsylvania, 1964*

Assistant Clinical Professors

Peter Carbonara. *B.A., Columbia, 1953; M.D., Boston, 1957*
Frank P. Cordasco. *B.S., Arizona, 1979; M.S., Rutgers, 1981; M.D., College of Medicine & Dentistry of New Jersey, 1985*
Robert N. Dunn. *B.A., Harvard, 1965; M.D., Columbia, 1969*
Allan E. Inglis, Jr. *B.A., Hobart, 1978; M.D., Cornell, 1983*
Merle H. Katzman. *B.S., Trinity (Connecticut), 1950; M.D., Jefferson, 1954*
Harvey Orlin. *M.D., State University of New York (Downstate), 1961*
Walter J. Pedowitz. *B.A., Lafayette, 1966; M.D., State University of New York (Downstate), 1971*
Robert M. Reiss. *B.A., Columbia, 1951; M.D., 1959*
Thomas D. Rodda. *B.A., King's College (Pennsylvania), 1957; M.D., Loyola, 1961*
Joseph E. Salvatore. *M.D., Hahnemann, 1955*
Edward B. Self, Jr. *B.A., Yale, 1932; M.D., Columbia, 1936*
Martin L. Sorger. *B.A., Hamilton, 1956; M.D., Columbia, 1960*
Ronald Tietjen. *B.S., Ursinus (Pennsylvania), 1968; M.D., New York University, 1972*
Luther F. Warren. *B.A., Harvard, 1961; M.D., Columbia, 1968*
Joel D. Weinstein. *B.A., Princeton, 1958; M.D., Columbia, 1962*

Associate Research Scientists

Robert James Foster. *B.A., Cooper Union, 1973; M.E., Columbia, 1974; Med.Sc.D., 1982*
Robert J. Pawluk. *B.S., Columbia, 1974; M.B.A., 1977*

SPECIAL LECTURERS

Austin D. Johnston, M.D.
D. Keith McElroy, M.D.
Charles S. Neer II, M.D.

LECTURER

Allan M. Levy, M.D.

INSTRUCTORS IN CLINICAL ORTHOPEDIC SURGERY

Mark P. Altman, M.D.
Douglas G. Avella, M.D.
Phillip A. Bauman, M.D.
Steven Berkowitz, M.D.
Robert M. Esposito, M.D.
Stuart J. Fischer, M.D.
Craig Richard Foster, M.D.
James S. Kort, M.D.
Marc I. Malberg, M.D.
Seth R. Miller, M.D.
Thomas A. Rago, M.D.
Wendell O. Scott, M.D.
Hervey S. Sicherman, M.D.
William T. Stillwell, M.D.
Francis F. Tarsney, M.D.
Marvin Winell, M.D.

At Mary Imogene Bassett Hospital

Assistant Clinical Professor

Franklin Lynch, Jr. *B.A., Dartmouth, 1972; M.D., 1975*

INSTRUCTORS IN CLINICAL ORTHOPEDIC SURGERY

Charles A. Mick, M.D.
Jonathan Richman, M.D.
Michael Ries, M.D.

At Harlem Hospital Center

Professor of Clinical Orthopedic Surgery

Marvin L. Shelton. *B.S., Howard, 1951; M.D., 1956*

Assistant Professors of Clinical Orthopedic Surgery

Reginald E. Manning. *B.A., Columbia, 1974; M.D., 1978*
Shearwood J. Mc Clelland. *B.A., Princeton, 1969; M.D., Columbia, 1974*

Assistant Clinical Professor

Frank G. Guellich. *B.S., St. Peters, 1961; M.D., College of Medicine & Dentistry of New Jersey, 1966*

INSTRUCTORS IN CLINICAL ORTHOPEDIC SURGERY

William L. King, Jr., M.D.
Caleb F. Medley, M.D.

At Helen Hayes Hospital

Professor of Clinical Orthopedic Surgery

George Van B. Cochran. *B.A., Dartmouth, 1953; M.D., Columbia, 1956; Med.Sc.D., 1957*

Assistant Professor

Mark Weidenbaum. *B.S., Connecticut, 1977; M.D., Columbia, 1981*

Assistant Professor of Clinical Orthopedic Surgery

Scott V. Haig. *B.A., Yale, 1980; M.D., 1984*

Associate Research Scientist

Murali P. Kadaba. *M.S., Cincinnati, 1972; Ph.D., Kentucky, 1978*

INSTRUCTOR IN CLINICAL ORTHOPEDIC SURGERY

Ralph N. Purcell, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Orthopedic Surgery

Joseph W. Fielding. *M.D., Toronto, 1946*

Clinical Professor

Robert E. Zickel. *B.A., Cornell, 1952; M.D., 1958*

Assistant Clinical Professors

Vincent G. Fietti, Jr. *B.A., Boston, 1968; M.D., 1972*
William G. Hamilton. *B.S., Princeton, 1954; M.D., Columbia, 1964*
Frederic E. Helbig. *B.A., Brown, 1964; M.D., Boston, 1969*
Paul Hobeika. *B.S., Christian Brothers (Lebanon), 1968; M.D., French Faculty, 1975*
Tarek Hisham Mardam-Bey. *M.D., American University of Beirut, 1972*
Ronald M. Match. *B.A., Hofstra, 1953; M.D., Jefferson, 1957*
James C. Parkes, II. *B.A., Dartmouth, 1957; M.D., Harvard, 1961*
Andrew H. Patterson. *B.A., North Carolina, 1954; M.D., Columbia, 1958*
Francesca Thompson. *B.A., Smith College, 1965; M.S.W., Fordham, 1968; M.D., Cornell, 1977*
George L. Unis. *B.A., New York University, 1960; M.D., College of Medicine and Dentistry of New Jersey, 1975*

INSTRUCTORS IN CLINICAL ORTHOPEDIC SURGERY

Richard J. Cea, M.D.
Sanford A. Ratzan, M.D.

Otolaryngology

Professor of Clinical Otolaryngology and Acting Chairman

Andrew Blitzer (also Dental & Oral Surgery). *B.A., Adelphi, 1966; D.D.S., Columbia, 1970; M.D., Mt. Sinai, 1973*

At Presbyterian Hospital

Professor of Auditory Biophysics

Shyyam K. Khanna. *B.S., Lucknow (India), 1951; D.R.E., St. Xaviers (Bombay), 1951*

Professor of Clinical Otolaryngology

Cheng Chun Huang. *B.S., Taiwan, 1963; M.S., Vanderbilt, 1966; Ph.D., Iowa, 1970*

Clinical Professors

Lawrence Savetsky. *B.A., New York University, 1951; M.D., State University of New York (Downstate), 1955*
Malcolm H. Schvey. *B.A., Lehigh, 1947; M.A., Columbia, 1950; M.D., Amsterdam, 1956*
Howard W. Smith. *D.M.D., Tufts, 1945; Ph.D., Yale, 1948; M.D., 1953*

Associate Professor of Clinical Otolaryngology

Jack Joseph Wazen. *B.S., American University of Beirut, 1974; M.D., 1978*

Associate Professor of Clinical Dental & Oral Surgery

Steven M. Roser (in Surgery). *B.A., Middlebury, 1964; D.M.D., Harvard, 1968; M.D., 1972*

Associate Clinical Professor

Raymond B. Strauss. *B.A., Washington (St. Louis), 1950; Ph.D., Florida, 1956; M.D., Case Western Reserve, 1968*

Associate Clinical Professor of Dental & Oral Surgery

John D. Piro (Prosthetics). *B.A., Fordham, 1943; D.D.S., Columbia, 1946*

Assistant Professors

Jonathan E. Aviv. *B.A., Columbia, 1981; M.D., 1985*
Joseph Haddad, Jr. *B.A., Wesleyan, 1978; M.D., New York University, 1983*
Steven R. Isaacson (also Radiation Oncology). *B.S., Pennsylvania State, 1969; M.D., Jefferson, 1973*
Monte S. Keen. *B.A., State University of New York (Binghamton), 1976; M.D., California (San Francisco), 1981*
Hector P. Rodriguez. *M.D., Autonomous (Guadalajara), 1980*

Assistant Professors of Clinical Otolaryngology

Lee David Eisenberg. *B.S., St. John's (New York), 1967; M.D., State University of New York (Downstate), 1971*
Daniel B. Kuriloff. *B.A., Washington, 1978; M.D., Mt. Sinai, 1982*

Assistant Clinical Professors

Anthony Paul Caruso. *B.S., Dickinson, 1971; M.D., Jefferson, 1975*
Hyun T. Cho. *M.D., Korea, 1964*
Daniel J. Pender. *B.S., Worcester Polytechnic Institute, 1963; M.S., Yale, 1964; M.D., Pennsylvania, 1969*

Associate Research Scientists

Lou Brundin. *B.S., Kevingegard (Sweden), 1981; M.D., Karolinska Institute (Stockholm, Sweden), 1987*
Mats L. Ulfendahl. *B.M., Karolinska Institute, 1983; Ph.D., 1989*

Adjunct Associate Research Scientists

Jonathan B. Allen. *Ph.D., Pennsylvania, 1970*
Barbara Canlon. *B.S., Brooklyn, 1980; M.S., Michigan, 1984; Ph.D., Karolinska Institute, 1988*

SPECIAL LECTURER

Robin M. Rankow, M.D.

INSTRUCTORS IN CLINICAL OTOLARYNGOLOGY

Robert M. Dewell, M.D.
Robert D. Huang, M.D.
Carol L. Mackersie, M.A.
Arlene H. Markowitz, M.D.
Diego Saporta, M.D.
Jayde Steckowych, M.D.

At Mary Imogene Bassett Hospital

INSTRUCTOR IN CLINICAL OTOLARYNGOLOGY

Paul D. Nosal, M.D.

At Harlem Hospital Center

Associate Clinical Professor

Errol A. Thompson. *M.B., University College (Dublin), 1936*

Assistant Clinical Professor

Ransford C. Newman. *M.B.,B.S., London, 1960*

INSTRUCTOR IN CLINICAL OTOLARYNGOLOGY

Ellsworth L. Frye, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Otolaryngology

Yosef P. Krespi. *M.D., Technion-Faculty of Medicine (Israel), 1973*

Assistant Professor of Clinical Otolaryngology

Steven J. Pearlman. *B.A., Brandeis, 1978; M.D., Mt. Sinai, 1982*

Assistant Clinical Professors

Tay Bong Lee. *M.D., Seoul National University, 1962*
Walter H. Stingle. *B.A., Columbia, 1965; M.D., 1969*

INSTRUCTORS IN CLINICAL OTOLARYNGOLOGY

Marta Aramburu, M.D.
Neville W. Carmical, M.D.
James F. Grillo, M.D.
Edward M. Lane, M.D.
L. Nicole Moulin, M.D.
Geoffrey J. Pollack, M.D.

Pathology

Francis E. Delafield Professor and Chairman

Michael M. Shelanski (in the Center for Neurobiology & Behavior). *M.D., Chicago, 1966; Ph.D., 1967*

At Presbyterian Hospital

Professors

Richard Axel (Eugene Higgins Professor) (also Biochemistry & Molecular Biophysics) (in the Institute for Cancer Research). *B.A., Columbia, 1967; M.D., Johns Hopkins, 1970*
Riccardo Dalla-Favera (Percy and Joanne Uris Professor) (also Genetics & Development). *M.D., Milan (Italy), 1976*
James E. Goldman (in Psychiatry). *B.A., Amherst, 1968; M.D., Ph.D., New York University, 1976*
Lloyd A. Greene (in the Center for Neurobiology & Behavior). *B.S., Chicago, 1965; Ph.D., California (San Diego), 1970*
Jack W. C. Hagstrom. *B.A., Amherst, 1955; M.D., Cornell, 1959*
Daniel M. Knowles. *B.A., Bridgeport, 1969; M.D., Chicago, 1973*
Ronald Liem (also Anatomy & Cell Biology) (in the Center for Neurobiology & Behavior). *B.A., Amherst, 1968; M.S., Cornell, 1969; Ph.D., 1973*
Carol A. Mason (also Anatomy & Cell Biology) (in the Center for Neurobiology & Behavior). *B.S., Chatham, 1967; M.A., California (Berkeley), 1969; Ph.D., 1973*
Frederick R. Maxfield (also Physiology & Cellular Biophysics) (in the Center for Neurobiology & Behavior). *B.S., Union, 1971; Ph.D., Cornell, 1977*
Ralph M. Richart (in Obstetrics & Gynecology). *B.A., Johns Hopkins, 1954; M.D., Rochester, 1958*
Virginia M. Tennyson (also Anatomy & Cell Biology). *B.S., Pennsylvania State, 1946; M.S., Baylor, 1956; M.D., Columbia, 1960*

Professor of Dental & Oral Surgery

David Zegarelli (Stomatology) (in Pathology). *B.A., Columbia, 1965; D.D.S., 1969*

Adjunct Professors

S. Raymond Gambino. *B.S., Antioch, 1948; M.D., Rochester, 1952*
Mary E. Hatten (in the Center for Neurobiology & Behavior). *B.A., Hollins, 1971; Ph.D., Princeton, 1975*
Robert V. Hutter. *B.A., State University of New York (Syracuse), 1950; M.D., 1954; M.A., Yale, 1958*
Harry L. Ioachim. *M.D., Bucharest (Rumania), 1949*
Sidney Pestka. *B.A., Princeton, 1957; M.D., Pennsylvania, 1961*

Professors of Clinical Pathology

Giuseppe A. Andres. *M.D., Pisa (Italy), 1949; Ph.D., 1965*
Eduardo Bonilla (also Neurology). *B.A., San Simon (Bolivia), 1957; M.D., Javerina (Bogota), 1964*
Paul B. Fisher (in Urology). *B.A., Hunter, 1968; M.A., Lehman, 1971; Ph.D., Rutgers, 1974*
Jay Lefkowitch. *B.A., Clark, 1972; M.D., Columbia, 1976*
Armand F. Miranda. *B.S., Columbia, 1969; M.D., 1973*
Robert F. Reiss (also Medicine). *B.A., State University of New York (Syracuse), 1959; M.D., Bologna (Italy), 1965*
Nicole Suciu-Foca (in Surgery). *B.S., Bucharest (Rumania), 1959; M.D., 1960; Ph.D., 1965*

Professor of Clinical Comparative Pathology

Dennis F. Kohn (in the Institute of Comparative Medicine). *D.V.M., Ohio State, 1964; M.S., West Virginia, 1969; Ph.D., 1975*

Professor of Clinical Surgical Pathology

Karl Perzin. *B.A., Columbia, 1954; M.D., 1958*

Clinical Professors

Pablo Rubinstein. *M.D., Chile, 1962*
David N. Silvers (also Dermatology). *B.A., Haverford, 1964; M.D., Duke, 1968*

Clinical Professor of Oral Pathology

Melvin N. Blake. *B.S., Massachusetts, 1951; D.D.S., New York University, 1955*

Associate Professors

Jeannette C. Bulinski (also Anatomy & Cell Biology). *B.A., Colorado, 1973; Ph.D., Wisconsin, 1980*
David R. Colman (also Anatomy & Cell Biology) (in the Center for Neurobiology & Behavior). *B.A., New York University, 1970; Ph.D., State University of New York (Downstate), 1977*
John F. Nicholson (also Pediatrics). *B.A., Vanderbilt, 1955; M.D., 1958*
Hermann D. Schubert (also Ophthalmology). *M.D., Dusseldorf (West Germany), 1974*

Associate Professors of Dental & Oral Surgery

Joan A. Phelan. *B.S., Columbia, 1962; M.S., 1967; D.D.S., State University of New York (Stony Brook), 1977*
Victor P. Terranova. *B.A., Rutgers, 1969; D.M.D., College of Medicine and Dentistry of New Jersey, 1972; M.S., Rochester, 1976; Ph.D., 1978*

Associate Professors of Neuropathology

Lester M. Geller. *B.A., Cornell, 1947; M.A., Michigan State, 1948; Ph.D., New York University, 1953*
Mavis Kaufman (in Psychiatry). *M.D., New York Medical College, 1944*

Adjunct Associate Professors

Majid Ali. *M.B.,B.S., Punjab, 1963; F.R.C.S., Royal, (London), 1968*
Ernest Baden. *M.A., Sorbonne, 1946; D.D.S., New York University, 1950; M.D., Geneva, 1962*
Lewis Allen Johnson. *B.A., Minnesota, 1951; M.D., 1955*
Michael J. Lotz. *B.A., Columbia, 1968; M.D., 1972*
Ah-Kau Ng (in Surgery). *B.S., National Chung Hsing University (Taiwan), 1969; M.D., State University of New York (Plattsburgh), 1972; Ph.D., Temple, 1975*
M. Richard Pachter. *M.D., Zurich, 1956*
John A. Terzakis. *B.A., Columbia, 1957; M.D., New York University, 1961*
Kaity Yannopoulos. *M.D., Greece, 1954*
Frederick T. Zugibe. *B.S., St. Francis, 1951; M.S., Chicago, 1959; Ph.D., 1960*

Associate Professors of Clinical Pathology

Carole Louise Berger (also Dermatology). *B.S., City College of New York, 1966; M.A., Columbia, 1971; M.S., 1975; Ed.D., 1976; Ph.D., 1984*

Thomas A. Blumenfeld. *A.A., North Carolina, 1960; M.D., Tennessee, 1964*
Vivette Denise D'Agati. *B.A., Yale, 1975; M.D., New York University, 1979*
Reba M. Goodman. *B.A., Indiana, 1949; M.A., Columbia, 1953; Ph.D., 1956*
Ellen Greenebaum. *B.A., Barnard, 1973; M.D., Columbia, 1977*
Mary E. King. *B.A., Smith, 1947; M.D., Columbia, 1951*
Charles C. Marboe. *B.A., Princeton, 1971; M.D., Pennsylvania State, 1976*
Kathleen Mary O'Toole. *B.S., Fordham, 1974; M.D., Albert Einstein, 1978*
May Parisien. *M.D., State University (Port-au-Prince), 1966*
Michael A. Pesce. *B.S., St. John's, 1967; Ph.D., 1971*
Heidrun Rotterdam. *M.D., Munich (Germany), 1968*
Ekkhart Trenkner. *Ph.D., Max-Planck-Institut fur Virusforschung (Tubingen, Germany), 1967*
H. Joachim Wigger. *M.D., Hamburg, 1954*
Barbara A. Winkler. *M.D., Columbia, 1978*

Associate Professors of Clinical Neuropathology

Richard Defendini. *B.A., Michigan, 1948; M.A., 1952; M.D., Rochester, 1961*
Arthur P. Hays. *B.A., Dartmouth, 1962; Med Sc.D., 1963; M.D., Colorado, 1966*

Associate Clinical Professors

Irwin A. Almenoff. *B.S., College of the City of New York, 1948; M.D., Cornell, 1952*
Daniel W. Benninghoff. *B.A., Yale, 1949; M.D., Columbia, 1953*
Phyllis Della-Latta (in Medicine). *B.S., St. John's, 1964; M.S., 1966; Ph.D., New York University, 1978*
Daniel J. Fink. *B.S., Cornell, 1968; M.S., Massachusetts Institute of Technology, 1970; M.D., Columbia, 1975; M.Phil., 1980*
Ricardo Mesa-Tejada. *B.S., Manhattan, 1964; M.D., Madrid, 1970*
Artemis D. Nash. *B.A., Smith, 1949; M.D., Columbia, 1953*
Mohamed M. Osman. *D.V.M., Cairo, 1967; Ph.D., Columbia, 1983*
Stanley Simbonis. *B.S., Yale, 1953; M.D., 1957*

Associate Clinical Professor of Neuropathology

Nicholas J. Willson (in Psychiatry). *B.S., St. Peter's, 1959; M.D., Seton Hall, 1963*

Assistant Professors

Ralph Buttyan (in Urology). *B.S., Pittsburgh, 1974; M.S., Chicago, 1977; Ph.D., 1980*
Amy Chadburn. *B.S., Oregon, 1979; M.D., Stanford, 1983*
Srikumar P. Chellappan. *B.S., Kerala (India), 1979; M.S., 1981; Ph.D., Indian Institute of Science, 1987*
Andrew J. Dwork (in Psychiatry). *B.A., Columbia, 1973; M.D., College of Medicine and Dentistry of New Jersey, 1977*
Gregg G. Gundersen (also Anatomy & Cell Biology). *B.S., Wisconsin, 1977; Ph.D., Washington, 1983*
Debra S. Heller. *B.A., City University of New York, 1971; M.D., New York Medical College, 1977*
Joseph Herbert (also Neurology) (Neuropathology). *B.S., Hebrew (Jerusalem), 1971; M.D., 1975*
Hanina Hibshoosh. *B.A., New York University, 1981; M.D., New York Medical College, 1985*
Giorgio G. A. Inghirami. *M.D., Torino (Italy), 1981*
Jan K. Kitajewski (in Obstetrics & Gynecology and the Center for Reproductive Sciences). *B.A., California (Berkeley), 1981; Ph.D., Princeton, 1987*
John J. Krolewski. *B.S.,M.S., Massachusetts Institute of Technology, 1977; M.D., Ph.D., New York University, 1984*
Gwo-Shu Mary Lee (also Public Health) (Tropical Medicine). *B.S., National University of Taiwan, 1978; M.S., 1981; Ph.D., New York University, 1985*

Eugene E. Marcantonio (in Anatomy & Cell Biology). *B.A., Rutgers, 1977; M.D., Ph.D., New York University, 1984*
Timothy E. Mc Graw. *B.A., Chicago, 1978; Ph.D., New York University, 1985*
Carol M. Troy. *B.A., Brandeis, 1977; M.S., New York University, 1980; M.D., Ph.D., 1984*
Benjamin Tycko. *B.A., Princeton, 1979; M.D., Ph.D., New York University, 1984*
Thomas C. Wright, Jr. *B.A., North Carolina, 1973; M.D., Harvard, 1977*
Scott O. Zeitlin. *B.S., Stanford, 1979; Ph.D., Columbia, 1985*

Adjunct Assistant Professors

Solange G. Abunassar. *M.D., American University of Beirut, 1968*
Alessandra Bini. *B.S., Milano (Italy), 1980; Ph.D., Columbia, 1987*
Larry E. Douglass. *B.A., Washington (St. Louis), 1959; M.D., Vanderbilt, 1960*
Howard B. Goldstein. *B.A., Colgate, 1955; M.D., State University of New York (Albany), 1959*
Arthur I. Hurvitz. *D.V.M., Michigan State, 1964; Ph.D., California (Davis), 1967*
Paul A. Krieger. *B.S., College of the City of New York, 1967; M.D., New York Medical College, 1971*
Harry F. Moussouris. *M.D., State University of New York (Downstate), 1975*
Robert D. Newman. *B.S., California (Los Angeles), 1958; M.D., 1962*
Joseph E. O'Brien. *B.A., Columbia, 1957; M.D., State University of New York (Downstate), 1961*

Assistant Professors of Clinical Pathology

Jerome Owen Cantor. *B.A., Columbia, 1971; M.D., Pennsylvania, 1975*
Joseph M. Ceretta. *B.S., Fordham, 1969; M.S., 1971; Ph.D., 1976*
Yuan Chang. *B.S., Stanford, 1981; M.D., Utah, 1987*
Kenneth W. Dunn. *B.A., California, 1976; Ph.D., State University of New York (Stony Brook), 1986*
Irene S. Georgieff. *B.A., Delaware, 1971; M.S., Hunter, 1980; Ph.D., Albert Einstein, 1988*
Paul E. Harris. *B.A., California (Berkeley), 1978; Ph.D., Cornell, 1985*
Stephen Keller. *B.S., City College of New York, 1953; M.S., St. John's, 1955; Ph.D., Rutgers, 1959*
Alexander Krichevsky. *P.M., Soviet Army School of Medical Assistants (U.S.S.R.), 1970; D.V.M., Odessa Agricultural Institute (U.S.S.R.), 1975*
John F. O'Connor. *B.S., St. John Fisher, 1960; Ph.D., Rochester, 1969*
Victor W. Shen. *B.S., Tunghai (Taiwan), 1968; Ph.D., Texas, 1976*

Assistant Professor of Clinical Comparative Pathology

Steven R. Brunnert (in the Institute of Comparative Medicine). *B.S., Missouri (Columbia), 1982; D.V.M., 1985*

Assistant Clinical Professors

Stefan D. Epstein. *B.A., Columbia, 1956; M.D., State University of New York (Buffalo), 1960*
Horoshi Nakazawa. *M.D., Keio (Tokyo), 1958*
Neelavathy Pushparaj. *B.S., Madras (India), 1957; M.B.,B.S., 1961*
Elaine Reed. *B.S., State University of New York (Stony Brook), 1979; M.S., Columbia, 1981; Ph.D., 1983*
Henry G. Shriever. *B.A., Vermont, 1956; M.D., New York Medical College, 1960*
Carol Williams (also Pediatrics). *B.S., California State Polytechnic, 1971; M.D., Autonomous (Guadalajara, Mexico), 1980*

Assistant Clinical Professor of Neuropathology

Michael Kogan. *B.A., Miami, 1964; B.S., 1967; Ph.D., Virginia Polytechnic Institute, 1972*

Associate Research Scientist

David W. O'Neill. *B.A., Cornell, 1980; M.D., Ohio State, 1984*
Suzy Shammah. *Ph.D., Milan (Italy), 1987*
Robert V. Sideli. *B.A., Middlebury, 1977; M.D., Universita' di Cagliari (Italy), 1985*
Li-Chong Wang. *B.A., Hubei Medical College, 1982; Ph.D., Shanghai Research Institute (China), 1987*

SPECIAL LECTURERS

David Cowen, M.D.
Paul Ellner, Ph.D.
Gabriel C. Godman, M.D.
Raffaele Lattes, M.D.
Conrad Pirani, M.D.

LECTURERS

Michael Baden, M.D.
Paul A. Brown, M.D.
Hyman Donnenfeld, M.D.
Janis F. Klavins, M.D.
Lee L. Rubin, Ph.D.

INSTRUCTORS

Ethel Cesarman, Ph.D.
Gee Y. Ching, Ph.D.

INSTRUCTORS IN CLINICAL PATHOLOGY

Raimundo Gonzalez, M.D.
Elena Zegarelli-Schmidt, Ph.D.

At Mary Imogene Bassett Hospital

Associate Clinical Professor

Harlan D. Alpern. *B.S., Michigan, 1967; M.D., Chicago, 1971*

Assistant Clinical Professor

William B. Guiney. *B.A., Cornell, 1970; M.D., Rochester, 1975*

INSTRUCTOR IN CLINICAL PATHOLOGY

Charles A. Ellsworth, M.D.

At Harlem Hospital Center

Clinical Professors

Prem Chauhan. *F.Sc.Med., Punjab (India), 1942; M.D., Cornell, 1959*
Carlos Navarro. *B.S., National University (Mexico), 1947; M.D., 1955*

Associate Clinical Professor

Helen M. S. Richards. *M.B.,B.S., Colombo (Sri Lanka), 1969*

Adjunct Assistant Professor

Eduardo Zappi. *M.D., Freie Universitaet (Berlin), 1968*

Assistant Professor of Clinical Pathology

Edward Moskovic. *M.D., Central (Madrid), 1956*

Assistant Clinical Professors

Claude J. Neptune. *M.D., Haiti, 1963*
Ranjit K. Sachdev. *M.B.,B.S., Mysore (Bangalore, India), 1964*
Louys Thomas. *M.D., Port-au-Prince (Haiti), 1965*

SPECIAL LECTURER

Angus C. Sampath, D.Sc.

INSTRUCTOR IN CLINICAL PATHOLOGY

Margarita E. Jimenez, M.D.

At Helen Hayes Hospital

Associate Professor of Clinical Pathology

William David Dempster. *Ph.D., Glasgow, 1979*

At Morristown Memorial Hospital

Professor of Clinical Pathology

Marianne Wolff. *B.A., Hunter, 1948; M.D., Columbia, 1952*

Associate Clinical Professor

Craig Dise. *B.S., Muhlenberg, 1971; M.D., Pennsylvania, 1975; Ph.D., 1978*

Assistant Clinical Professors

Kathleen B. Harrison. *B.S., Fordham, 1972; M.S., Long Island, 1975; Ph.D., Fordham, 1982*
Nancy Joy Hunter. *B.S., Michigan, 1974; M.D., 1978*
Robert S. Katz. *B.A., Haverford, 1972; M.D., Albert Einstein, 1975*
Jory G. Magidson. *M.D., Columbia, 1978*

At Overlook Hospital

Clinical Professor

Bernard M. Wagner. *M.D., Hahnemann, 1946*

Assistant Clinical Professors

Steven L. Goldberg. *B.A., Kenyon, 1963; M.D., State University of New York (Downstate), 1968*
Anthony Marchand. *B.A., Connecticut, 1966; M.D., Duke, 1970*
Joel A. Roth. *B.A., Brooklyn, 1964; M.D., State University of New York (Downstate), 1968*
Donald L. Warkentin. *B.A., Yale, 1961; Ph.D., State University of New York (Syracuse), 1972*

ASSOCIATE IN CLINICAL PATHOLOGY

Frederick van Lente, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Surgical Pathology

Stephen F. Ryan. *B.S., Regis College (Denver), 1957; M.D., Colorado, 1961*

Associate Professor

David J. Volsky. *B.S., Ben-Gurion University (Israel), 1972; M.S., Hebrew University (Israel), 1975; Ph.D., 1979*

Assistant Professor

Mary J. Potash. *B.A., Wellesley, 1974; Ph.D., Brown, 1978*

Assistant Professor of Clinical Pathology

Deng Fong Liau. *M.Sc., McGill, 1968; Ph.D., 1971*

Assistant Clinical Professors

Harold P. Gaetz. *B.S., McGill, 1953; M.D., 1958*
Martin S. Krumerman. *B.S., New York University, 1961; M.D., 1965*
Bozidar Lazarevic. *M.D., Belgrade, 1956*
Corazon S. Sian. *A.A., Santo Tomas (Philippines), 1958; M.D., 1963*

INSTRUCTOR

Petra Banogon, M.D.

INSTRUCTORS IN CLINICAL PATHOLOGY

Elizabeth D. Ames, M.D.
Vijai Katatikarn, M.D.
Rose-Sunitha Thayaparan, M.D

Pediatrics

Professor of Clinical Pediatrics and Acting Chairman

John M. Driscoll. *B.A., Hamilton, 1958; M.D., Bowman Gray, 1962*

At Presbyterian Hospital

Professors

Richard Deckelbaum. *B.S., McGill, 1963; M.D., 1967*
Ralph B. Dell. *B.A., Pomona, 1957; M.D., Pennsylvania, 1961*
Darryl C. De Vivo (also Sidney Carter Professor of Neurology). *B.A., Amherst, 1959; M.D., Virginia, 1964*
Anne A. Gershon. *B.A., Smith, 1960; M.D., Cornell, 1964*
Welton M. Gersony. *B.A., Syracuse, 1954; M.D., State University of New York (Upstate), 1958*
Robert B. Mellins. *B.A., Columbia, 1948; M.D., Johns Hopkins, 1952*
Sergio Piomelli (James S. Wolf Professor). *B.A., Liceo Sannazzaro (Naples), 1948; M.D., Naples, 1954*
Michael R. Rosen (also Gustavus A. Pfeiffer Professor of Pharmacology). *B.A., Wesleyan, 1960; M.D., State University of New York (Downstate), 1964*
David Shaffer (Irving Philips Professor of Child Psychiatry) (also Psychiatry). *M.B.,B.S., London, 1961; Academic Diploma Psychological Medicine, 1969*

Raymond I. Stark (Perinatology) (in Obstetrics & Gynecology). *B.S., Columbia, 1963; M.D., 1970*
Robert J. Winchester. *B.S., Manhattan, 1958; M.D., Cornell, 1963*

Professor of Pediatric Surgery

R. Peter Altman (Rudolph H. Schullinger Professor of Pediatric Surgery) (in Surgery). *B.A., Colgate, 1955; M.S., Rochester, 1958; M.D., New York Medical College, 1961*

Professor of Pharmacology

Joseph Graziano. *B.S., Long Island, 1967; Ph.D., Rutgers, 1971*

Professors of Clinical Pediatrics

Nicholas Cunningham (also Public Health) (Population & Family Health). *B.A., Harvard, 1950; M.D., Johns Hopkins, 1955*
John C. Dower. *B.A., Johns Hopkins, 1950; M.D., 1954*
Harold E. Fox (also Obstetrics & Gynecology). *M.S., Rochester and Oxford, 1972; M.D., Rochester, 1972*
Arnold P. Gold (also Neurology). *B.A., Texas, 1947; M.S., Florida, 1949; M.D., Lausanne, 1954*
Jerry C. Jacobs. *B.A., Columbia, 1952; M.D., 1956*
Tove S. Rosen. *B.A., Rochester, 1961; M.D., State University of New York (Downstate), 1965*
Peter T. Rothstein (also Anesthesiology). *B.A., Brandeis, 1966; M.D., Albert Einstein, 1970*
Anneliese L. Sitarz. *B.A., Bryn Mawr, 1950; M.D., Columbia, 1954*
William T. Speck. *B.A., Rutgers, 1963; M.D., Wake Forest, 1968*

Professor of Clinical Anesthesiology

Jen-Tien Wung. *M.D., Taipei Medical College, 1956*

Professor of Clinical Genetics & Development

Dorothy Warburton. *Ph.D., McGill, 1961*

Professor of Clinical Psychiatry

H. Donald Dunton. *M.D., Rochester, 1945*

Clinical Professors

Fred Agre. *B.A., Lafayette, 1957; M.D., Duke, 1961*
Russell S. Asnes. *B.A., Boston, 1959; M.D., Tufts, 1963*
Frederic M. Bomback. *B.A., Brandeis, 1965; M.D., New York University, 1969*
Roy E. Brown. *A.B., Columbia, 1952; M.D., 1956; M.P.H., South Carolina, 1967*
William J. Davis. *B.A., Wilkes, 1961; M.D., Columbia, 1965*
Joseph A. Silverman. *B.A., Princeton, 1952; M.D., Columbia, 1956*

Clinical Professor of Psychiatry

Arthur Green. *B.A., Rochester, 1951; M.D., Amsterdam, 1956*

Senior Research Scientist

Salha S. Daniel (also Anesthesiology). *B.S., London, 1954; Ph.D., 1957*

Associate Professors

Ehud Krongrad. *M.D., Hebrew (Jerusalem), 1965*
Gilbert W. Mellin. *B.S., Bethany, 1945; M.D., Johns Hopkins, 1949*
Akira Morishima. *M.D., Keio (Japan), 1954; Ph.D., 1961*
John F. Nicholson (also Pathology). *B.A., Vanderbilt, 1955; M.D., 1958*

Adjunct Associate Professor

Nigel S. Paneth (in the Sergievsky Center). *A.B., Columbia, 1968; B.M.S., Dartmouth, 1970; M.D., Harvard, 1972; M.P.H., Columbia, 1978*

Associate Professors of Clinical Pediatrics

Linda J. Addonizio. *B.S., Stanford, 1974; M.D., Columbia, 1978*
Kwame Anyane-Yeboa. *M.D., Ghana, 1972*
Robyn J. Barst. *B.A., Rochester, 1972; M.D., North Carolina, 1976*
Jennifer J. Bell. *B.A., Swarthmore, 1953; M.D., New York University, 1961*
Janna C. Collins (also Medicine). *B.A., Radcliffe, 1965; M.D., New York University, 1972*
Leslie Davidson (also Public Health) (Epidemiology) (in the Sergievsky Center). *B.A., Radcliffe, 1970; M.D., Columbia, 1978*
Ronald Gould Emerson (also Neurology). *M.D., New York University, 1975*
Candace Jean Erickson. *B.A., George Washington, 1969; M.D., Maryland, 1973*
Charles H. Feldman. *B.A., Columbia, 1966; M.D., State University of New York (Downstate), 1970*
James H. Garvin. *B.A., Harvard, 1968; M.D., Jefferson, 1976*
Ludovico Guarini. *M.D., Naples (Italy), 1974*
Allan Hordof. *B.A., Hobart, 1962; M.D., New York University, 1966*
Sudha Kashyap. *M.B.,B.S., St. John's (Bangalore, India), 1972*
Martin Nash. *B.A., Duke, 1960; M.D., 1964*
Jane Pitt. *B.A., Radcliffe, 1960; M.D., 1964*
Alice S. Prince. *B.A., Wellesley, 1971; M.D., Columbia, 1975*
Joan A. Regan. *B.S., Mount St. Vincent, 1969; M.D., Missouri, 1974*
Karl F. Schulze. *B.A., Carleton, 1961; M.D., Rochester, 1965*
Paul A. Shurin. *B.A., Brooklyn, 1961; M.D., Harvard, 1965*

Associate Clinical Professors

Robert E. Appleby. *M.D., Johns Hopkins, 1949*
Joan F. Atkin. *B.A., Rutgers, 1967; M.D., Hawaii, 1978*
William A. Bauman. *B.S., Harvard, 1943; M.D., Columbia, 1946*
Roger S. Challop. *B.S., Brooklyn, 1963; M.D., New York Medical College, 1967*
Bernard R. Feldman. *B.S., William and Mary, 1955; M.D., Chicago, 1959*
Burton Grebin. *B.A., Adelphi, 1962; M.D., New York Medical College, 1966*
Constance J. Hayes. *B.S., St. Rose, 1959; M.D. Loyola, 1965*
Mathilde Irigoyan. *B.A., Buenos Aires, 1966; M.D., 1971*
Kenneth H. Katz. *B.A., Lafayette, 1968; M.D., New York Medical College, 1973*
George Lazarus. *B.A., Yale, 1967; M.D., Columbia, 1971*
Harriet E. McGurk. *B.A., Radcliffe, 1967; M.D., Albert Einstein, 1973*
Michael Novogroder. *B.S., Brooklyn, 1965; M.D., State University of New York (Upstate), 1969*
Jack C. Shiller. *B.A., North Carolina, 1947; M.D., Columbia, 1952*
Thomas Joseph Starc. *B.A., California (Berkeley), 1972; M.D., Mt. Sinai, 1976*

Research Scientist

Rajasekhar Ramakrishnan. *B. Tech., India Institute of Technology, 1968; M.S., Columbia, 1971; D. Eng. Sc., 1974*

Assistant Professors

Claudia Chiriboga-Klein (also Neurology). *M.D., National University of Buenos Aires (Argentina), 1982*
Edward Dwyer. *B.A., Kenyon, 1975; M.D., Medical College of Ohio, 1981*
Narmer F. Galeano. *M.D., Universidad National (Colombia), 1975*
Daphne Hsu. *B.A., Radcliffe, 1978; M.D., Yale, 1982*
Anne Hurlet-Jensen. *M.D., Liege (Belgium), 1966*
Silviu Itescu. *M.B.,B.S., Monash (Australia), 1981*
Anastassios C. Koumbourlis. *M.D., University of Athens, 1980; M.P.H., Johns Hopkins, 1983*
Philip S. Larussa. *B.S., State University of New York (Stony Brook), 1970; M.D., Bologna (Italy), 1978*
Suzanne C. Li. *B.S., Yale, 1978; M.A., Columbia, 1982; M.D., Ph.D., 1985*
Thomas A. Moulton. *B.A., Case Western Reserve, 1979; M.D., Loyola, 1984*
Pramod Narula. *M.B.,B.S., Maulana Azad (India), 1977*
Stephen W. Nicholas. *B.S., Wyoming, 1975; M.D., Colorado, 1981*
Douglas R. Nordli, Jr. (also Neurology). *B.A., Haverford, 1980; M.D., Columbia, 1984*
Lynne M. Quittell (also Medicine). *B.A., Hampshire, 1975; M.D., Tel Aviv, 1981*
Lisa Saiman. *B.A., Cornell, 1977; M.D., Albert Einstein, 1983*
William Schechter (also Anesthesiology). *B.A., Columbia, 1976; M.S., New York University, 1978; M.D., State University of New York (Buffalo), 1982*
Eric L. Skolnick (also Anesthesiology). *B.A., Queens (New York), 1976; M.D., Medical College of Pennsylvania, 1980*
Arthur J. Smerling (also Anesthesiology). *B.A., Yeshiva, 1976; M.D., Pittsburgh, 1980*
Lena S. Y. Sun (also Anesthesiology). *B.S., Massachusetts Institute of Technology, 1975; M.D., Mount Sinai, 1979*
Rosario R. Trifiletti (also Herbert & Florence Irving Assistant Professor of Neurology). *B.S., Seton Hall, 1979; M.D., Ph.D., Johns Hopkins, 1986*
Howard A. Zucker (also Anesthesiology). *B.S., McGill, 1979; M.D., George Washington, 1982*

Assistant Professor of Public Health

David Evans (Sociomedical Sciences) (in Pediatrics). *B.A., Harvard, 1964; M.A., Northwestern, 1969; Ph.D., 1975*

Assistant Professors of Clinical Pediatrics

Gaya S. Aranoff. *B.A., Barnard, 1972; M.D., Albert Einstein, 1975*
Christine Marie Donnelly. *B.A., Manhattanville, 1973; M.D., Columbia, 1978*
Sarmistha Bhaduri Hauger. *B.S., Texas, 1972; M.D., Loyola Stritch, 1976*
Ramamohana R. Kairam (also Neurology). *M.B.,B.S., Andhra (India), 1970*
Mary J. Marron-Corwin. *B.S., Malloy, 1980; M.D., Far Eastern, 1985*
Mary McCord. *B.A., Williams, 1978; M.D., Columbia, 1983; M.P.H., 1986*
Glenn J. B. Mendoza. *B.S., Philippines, 1972; M.D., 1976*
Celia Ores. *M.D., Berne (Switzerland), 1956*
Marlon S. Rosenbaum (also Medicine). *B.A., Vassar, 1976; M.D., New York University, 1980*
Nan Salamon. *B.S., Cornell, 1975; M.D., Pittsburgh, 1981*
Ulana M. Sanocka. *B.S., Brooklyn, 1968; M.D., New York University, 1974*
Robert L. Seigle. *B.A., Northwestern, 1970; M.D., Columbia, 1974*
Elizabeth A. Wedemeyer. *B.A., Yale, 1979; M.D., George Washington, 1984*

Assistant Professor of Clinical Psychology

Donald E. Hutchings (in Psychiatry). *B.A., Wake Forest, 1959; M.A., Chicago, 1963*

Assistant Clinical Professors

Robert E. Antar. *B.S., Brooklyn, 1965; M.D., Louvain (Belgium), 1970*

Michael Bartalos. *M.D., Heidelberg, 1960*
James T. Belisle. *B.S., Cornell, 1979; M.D., Columbia, 1984*
Alexander Blum, Jr. *B.S., Yale, 1944; M.D., Harvard, 1947*
Jocelyn Brown. *M.D., Xavier, 1980*
Thomas M. Connor. *B.S., St. Francis, 1961; M.D., Bologna, 1961*
Amy R. DeFelice. *B.S., City University of New York, 1976; M.D., Universidad Autonoma de Guadalajara (Mexico), 1980*
Marian B. Demeny. *B.A., Barnard, 1969; M.D., New York University, 1973*
Yvonne T. Driscoll. *B.A., Trinity, 1958; M.D., Women's Medical College of Pennsylvania, 1962*
T. Donald Eisenstein. *B.A., Johns Hopkins, 1952; M.D., State University of New York (Albany), 1956*
Kevin L. Fletcher. *B.S., Texas Christian (Forth Worth), 1982; M.D., Texas Medical College (Houston), 1986*
Jane Eliot Fried (in Psychiatry). *B.A., Vassar, 1964; M.D., Columbia, 1970*
Joseph W. Gaffney, *B.S., Boston, 1977; M.D., New York Medical College, 1981*
Gustave Gavis. *B.A., Indiana, 1948; M.D., State University of New York (Downstate), 1952*
Stephen Glaser. *B.A., Columbia, 1960; M.D., New York University, 1964*
Hazel Goodwin. *B.A., Eastern Nazarene (Massachusetts), 1957; M.D., McGill, 1961*
Bertram H. Grossman. *B.A., North Carolina, 1948; M.D., Georgetown, 1959*
Robert A. Hands, Jr. *M.D., Cornell, 1968*
Leonard Kasen. *B.S., Rutgers, 1953; M.S., 1954; M.D., Albert Einstein, 1960*
Stuart Kaufman. *B.A., State University of New York (Buffalo), 1975; M.D., Medical College of Pennsylvania, 1980*
Philip Kazlow. *B.A., Yeshiva, 1976; M.D., Mt. Sinai, 1980*
Janice Fern Klein. *B.S., State University of New York (Stony Brook), 1976; M.D., Albert Einstein, 1980*
Robert M. Klein. *B.A., New York University, 1973; M.D., New York Medical College, 1976*
Murray D. Kuhr. *B.S., Cincinnati, 1961; M.D., Chicago, 1965*
Betty C. M. L. Kuo. *B.A., Vassar, 1959; M.D., State University of New York (Albany), 1964*
Nyla Lamm. *B.S., State University of New York (Stony Brook), 1980; M.S.W., 1982; Ed.M., Teachers College, 1984; Ed.D. 1988*
Elaine C. Lee. *B.A., Skidmore, 1971; M.A., New York University, 1972; M.D., Dartmouth, 1979*
William Lee. *B.A., Columbia, 1979; M.D., New York University, 1983*
Barbara Ann Liskin (also Psychiatry). *M.D., Columbia, 1979*
Carolkay Lissenden. *B.A., Pennsylvania, 1959; M.D., Woman's Medical College of Pennsylvania, 1964*
Neil Lombardi (also Neurology). *B.A., M.D., Boston, 1967*
Judith Luskin. *B.A., Radcliffe, 1974; M.D., Tufts, 1978*
Zvi S. Marans. *B.A., Columbia, 1979; M.D., Pennsylvania, 1984*
Mona Milstein. *B.A., State University of New York (Binghamton), 1965; M.D., State University of New York (Buffalo), 1969*
Neil Minikes. *B.S., State University of New York (Stony Brook), 1974; M.D., Columbia, 1980*
Harriette R. Mogul. *B.A., Bryn Mawr, 1961; M.D., Albert Einstein, 1965*
Richard Mones. *B.A., Brooklyn, 1967; M.D., New York Medical College, 1971*
Damyanti Moorjani (also Rehabilitation Medicine). *B.S., Bombay, 1953; M.D., Grant (Bombay), 1957*
Morton H. Rachelson. *B.A., State University of New York (Syracuse), 1946; M.D., Tulane, 1950*
David J. Resnick. *B.A., Yeshiva, 1982; M.D., State University of New York (Downstate), 1986*
Boris Rubinstein (also Psychiatry). *M.D., Mexico, 1970*
Malcolm S. Schwartz. *D.O., College of Osteopathic Medicine and Surgery, 1967*
Kung Tso Sheng. *M.D., St. John's (Shanghai), 1954*
David Siegler. *B.S., Columbia, 1975; M.D., Tufts, 1979*
Susan Spear. *B.A., Wellesley, 1968; M.D., Columbia, 1972*
Elizabeth K. Stern. *B.A., Michigan State, 1967; M.S., Michigan, 1969; Ph.D., 1974; M.D., Columbia, 1978*

Benjamin Hoi Tsang. *B.A., Columbia, 1976; M.D., Albert Einstein, 1980*
Carol Williams (also Pathology). *B.S., California State Polytechnic, 1971; M.D., Autonomous (Guadalajara, Mexico), 1980*
David Wisotsky. *B.S., College of the City of New York, 1970, M.D., Albert Einstein, 1974*

Assistant Clinical Professor of Psychiatry

Elisabeth B. Guthrie. *B.A., Sarah Lawrence, 1979; M.D., Albert Einstein, 1981*

Associate Research Scientists

Elizabeth Anisfeld. *B.A., Toronto, 1960; M.A., McGill, 1961; Ph.D., 1964*
Maria Ann Crisafi. *Ph.D., Illinois, 1985*
Moshe J. Levison. *B.A., Pennsylvania, 1965; Ph.D., Indiana, 1973*
Carol Seaman. *B.S., Southern California, 1964; M.S., New York University, 1977*
Tetsunori Seki. *B.S., Kyoto (Japan); 1971; M.S., Nagoya (Japan), 1974; Ph.D., 1980*
Sharon P. Steinberg. *B.S., City College of New York, 1967*
Xiuhua Wang. *B.S., Shanghai Fudan, 1982; M.S., California (Los Angeles), 1986; Ph.D., 1989*

SPECIAL LECTURERS

Sylvia P. Griffiths, M.D.
L. Stanley James, M.D.
Michael Katz, M.D.
James A. Wolff, M.D.

LECTURERS

Albert Aharon, M.D.
Judith R. Marcus, M.D.
Lucille A. Perrotta, M.D.
Yaakov Shechter, Ph.D.

ASSOCIATES IN CLINICAL PEDIATRICS

Heidi E. Beutler, M.D.
Lilian Wah-Ying Chiu, M.D.
Maryann J. Colenda, M.D.
John L. Costa, M.D.
Ann L. Engelland, M.D.
Alan Kanter, M.D.
Mariellen M. Lane, M.D.
Peter F. Migel, M.D.
Carlyn Ann Oppedisano, M.D.
I. Jill Ratner, M.D.
Martin M. Rodriguez-Ema, M.D.
Robert M. Schwartz, M.D.
Lynn M. Sugarman, M.D.
Nikki Lynn Timko, M.D.
Mary Versfelt, M.D.
Margaret C. Wang, M.D.
Jacqueline Weingarten-Arans, M.D.

ASSOCIATE IN CLINICAL NURSING

Jane C. Andersen, M.S.

INSTRUCTORS

Patrick A. Caruso, M.D.
Carlos H. Montoya-Iraheta, M.D.

INSTRUCTORS IN CLINICAL PEDIATRICS

Karen Altmann, M.D.
Anne H. Armstrong-Coben, M.D.
Scott D. Bookner, M.D.
Dennis A. Brown, M.D.
Maury Buchalter, M.D.
Kuang-Chung Hu Chien, M.B.,B.S.
Bernard Etra, M.D.
Arlene Falk, M.D.
Bettina L. Fliegel, M.D.
Howard M. Friedman, M.D.
Jose R. Jerez, M.D.
Nelly Jouayed, M.D.
Diane Kerstein, M.D.
Rosemary E. Klenk, M.D.
Michael L. Lapkin, M.D.
Dorothy A. Levine, M.D.
Jennie May Li, M.D.
Stacey M. Linwood, M.D.
Dodi D. Meyer, M.D.
Lesley G. Miller, M.D.
Valerie Jai Niketakis-Wujciak, M.D.
Betsy Pfeffer, M.D.
Adrienne R. Rogers, M.D.
Rosalinda Rubinstein, M.D.
Gail Schewitz, M.D.
McColvin A. Scott, M.D.
Susan Skalsky, M.D.
John R. Stafford, M.D.
Allison Taylor, M.D.
Donna M. Timchak, M.D.
Rachel J. Weller, M.D.
Susan Yoo Sonhe, M.D.

At Mary Imogene Bassett Hospital

Associate Professor of Clinical Pediatrics

Barbara A. Dennison. *B.A., Delaware, 1975; M.D., Wisconsin, 1982*

Associate Clinical Professors

Allan S. Cunningham. *B.A., Yale, 1962; M.D., Case Western Reserve, 1966*
Gerald B. Kolski. *B.A., Dartmouth, 1964; Ph.D., Purdue, 1969; M.D., Cornell, 1976*

ASSOCIATES IN CLINICAL PEDIATRICS

Douglas H. Cannon, M.D.
Mark F. Ditmar, M.D.
John G. Freehafer, M.D.
Ann Fay Mick, M.D.
Margaret R. Young, M.D.

At Harlem Hospital Center

Professor

Margaret Heagerty. *B.A., Seton Hall, 1957; B.S., West Virginia, 1959; M.D., Pennsylvania, 1961*

Professor of Clinical Pediatrics

Gene-Ann Polk. *B.A., Oberlin, 1948; M.D., Woman's Medical College of Pennsylvania, 1952; M.P.H., Columbia, 1958*

Associate Professor of Clinical Pediatrics

Wiener Leblanc. *B.S., Haiti, 1950; M.D., 1956*

Associate Clinical Professors

Vincent E. Hutchinson. *M.B.,B.S., West Indies, 1972*
Yusuf M. Khakoo. *M.B.,B.S., Bombay, 1962*
Claudina Y. Wallace. *B.S., Howard, 1963; M.D., 1967*

Assistant Professor

Danielle Laraque. *B.S., California (Los Angeles), 1976; M.D., 1981*

Assistant Professors of Clinical Pediatrics

Elaine J. Abrams. *B.A., Princeton, 1978; M.D., Columbia, 1982*
Araceli R. Ancajas. *M.D., Santo Tomas (Philippines), 1961*
Florence G. Crawford. *B.A., Drew, 1967; M.D., Cornell, 1971; M.P.H., Columbia, 1987*
Josephine Kerr. *B.A., Cornell, 1947; M.D., New York University, 1951*

Assistant Clinical Professors

Beverly A. Anderson. *B.A., Stanford, 1974; M.D., Albert Einstein, 1977*
David A. Bateman. *B.A., Wooster, 1968; M.D., Tufts, 1973*
Evelyn Davis. *B.A., City College of New York, 1963; M.D., New York University, 1979*
Serge Fenelon (also Rehabilitation Medicine). *M.D., Lausanne, 1973*
Irene Fennoy. *B.A., Stanford, 1968; M.D., California (San Francisco), 1973*

Delores J. Gayle-Thompson. *M.D., Howard, 1967*
Catherine A. Hansen. *B.A., Carleton, 1978; M.D., Chicago, 1982*
Emily Jackness. *B.A., Barnard, 1978; M.D., Columbia, 1982*
Harry Moreau. *M.D., Universidad Autonoma de Mexico, 1977*
William J. Moss. *B.A., Wesleyan, 1980; M.D., Columbia, 1984*
Muriel M. Petioni. *B.S., Howard, 1934; M.D., 1937*
Maria Pyrgerou-Kofinas. *M.D., Athens (Greece), 1975*
Marguerita A. Silvera. *B.S., Brooklyn, 1969; M.D., Albert Einstein, 1973*
Maria S. Suarez. *B.S., Puerto Rico, 1973; M.D., 1978*
Charles A. Welborn. *M.P.H., M.D., Tulane, 1980*

INSTRUCTORS IN CLINICAL PEDIATRICS

Roberto Araiza, M.D.
Jacqueline Avin, M.D.
Susan E. Champion, M.D.
Daniel A. Darku, M.D.
Sofia De la Cruz, M.D.
Mark E. Dovey, M.D.
Bruce M. Henry, M.D.
Shane P. Hoffman, M.D.
Margaret A. Jackson, M.D.
Susan K. Lovich, M.D.
Asma J. Sadiq, M.B.,B.S.
Beverley J. Sheares, M.D.
Carole M. Wilson, M.D.

INSTRUCTOR IN CLINICAL NURSING

Carlether G. Burwell, M.A.

At Helen Hayes Hospital

Assistant Professor of Clinical Pediatrics

Richard J. Hershcopf. *B.S., State University of New York (Buffalo), 1970; M.S., M.D., 1974*

At Morristown Memorial Hospital

Professor of Clinical Pediatrics

John T. Truman. *B.A., McMaster, 1957; M.D., Toronto, 1960; M.P.H., Harvard, 1983*

Clinical Professor

Stephen Wang. *B.A., Columbia, 1960; M.D., 1964*

Associate Professor of Clinical Pediatrics

Walter D. Rosenfeld. *B.S., Wisconsin, 1972; M.D., Temple, 1975*

Associate Clinical Professors

Joan F. Atkin. *B.A., Rutgers, 1967; M.D., John A. Burns (Honolulu), 1978*
Lawrence M. Skolnick. *B.A., Queens (New York), 1968; M.D., New York University, 1972; M.P.H., North Carolina, 1980*
Harold S. Starkman. *B.A., New York University, 1973; M.D., Albert Einstein, 1976*

Associate Clinical Professor of Child Development

Shirley P. Hoeman. *B.S.N., Missouri, 1964; M.P.H., Minnesota, 1974; M.A., Rutgers, 1982; Ph.D., 1984*

Assistant Professor of Clinical Pediatrics

Arthur B. Atlas. *B.A., Yeshiva, 1977; M.D., Universidad Autonoma de Guadalajara, 1982*
Theodore Andrew Kastner. *B.A., Colgate, 1977; M.D., Connecticut Medical College, 1981*

Assistant Clinical Professors

William J. Chernack. *A.B., Cornell, 1966; M.D., New York Medical College, 1970*
Martin Lewis Cohen. *M.D., State University of New York (Upstate), 1967*
Gary E. Eddey. *B.S., Maryland, 1976; M.S., Pittsburgh, 1978; M.D., Cornell, 1983*
Henry J. Kim. *M.D., Seoul National University, 1962*
David E. Knoop. *B.A., Harvard, 1958; M.D., Yale, 1962*
Robert Kornblum. *B.A., Columbia, 1958; M.D., State University of New York (Downstate), 1962*
Mary Ann Lo Frumento. *B.A., Columbia, 1977; M.D., Pennsylvania Medical College, 1981*
William L. Lupatkin. *B.S., Columbia, 1965; M.S., 1966; Ph.D., 1970; M.D., Miami, 1974*
Gaines M. Mimms. *B.A., Duke, 1971; M.D., Bruxelles (Belgium), 1979*
Andrew Schenkman. *M.D., Chile, 1976*
Calvin T. Shen. *B.S., Yale, 1981; M.D., State University of New York (Downstate), 1985*

INSTRUCTORS IN CLINICAL PEDIATRICS

Julie A. Ashton-Thrun, M.D.
Fern Gotfried, M.D.
Elizabeth Rose, M.D.
Kathleen A. Selvaggi-Fadden, M.D.
Barry D. Weinreb, M.D.
Ann S. Wittpenn, M.D.

At Overlook Hospital

Clinical Professors

Gloria Schrager. *B.A., Brooklyn, 1944; M.D., Woman's Medical College of Pennsylvania, 1948*
Lawrence H. Vallet. *B.S., Tulane, 1958; M.D., Dalhousie, 1965*

Associate Clinical Professor

Solomon J. Cohen. *B.A., Cornell, 1944; M.D., Johns Hopkins, 1951*

Assistant Clinical Professors

Joseph I. Boylan. *B.A., Columbia, 1951; M.D., Yale, 1955*
Frederick C. Braun, Jr. *B.S., Georgetown, 1951; M.D., Jefferson, 1955*
Howard S. Britt. *B.A., M.D., Boston, 1970*
Steven Diamond. *B.S., Brooklyn, 1970; M.D., Pennsylvania, 1974*
Burton M. Feinsmith. *B.S., Arkansas, 1949; M.S., Florida, 1951; M.D., Berne, 1961*
Frank P. Frenda. *B.A., Johns Hopkins, 1959; M.D., Padua (Italy), 1965*
Stephen Halpern. *B.A., Rochester, 1972; M.D., Chicago, 1976*
John H. Krikorian. *B.A., Yale, 1958; M.D., Bowman Gray, 1963*
Donald A. Leichter. *B.S., Duke, 1974; M.D., Cornell, 1980*
Ophelia James Mall. *M.D., Dow Medical College (Pakistan), 1968*
Lewis I. Sank. *B.A., Johns Hopkins, 1957; M.D., 1961*
Frederic A. Schulaner. *B.S., Tufts, 1955; M.D., 1959*
Sandy P. Waran. *M.D., Ceylon, 1968*

ASSOCIATES IN CLINICAL PEDIATRICS

Paul Avondoglio, M.D.
Wesley Boodish, M.D.
Martin Diamond, M.D.
Paul A. Kearney, M.D.
Barry Lauton, M.D.
John F. Vigorita, M.D.
Donald Wight, M.D.

INSTRUCTORS IN CLINICAL PEDIATRICS

Ghitta Eibschutz, M.D.
Carl H. Herman, M.D.
Alexander R. Horowitz, M.D.
Victor S. Lamberto, M.D.
Shelly Lanzkowsky, M.D.
Uday C. Mehta, D.C.H.
Alice Merkrebs, M.D.
Bharati S. Mullick, M.D.
John Owen Percy, M.D.
Stanislawa Rosnowski, M.D.
Arvind P. Shah, M.D.
James Sorger, M.D.
Rao V. Vinnakota, M.B.,B.S.

At St. Luke's-Roosevelt Hospital Center

Professors

Louis Z. Cooper. *B.S., Yale, 1954; M.D., 1957*
Lenore S. Levine. *B.A., Vassar, 1954; M.D., New York Medical College, 1958*

Adjunct Professor of Public Health

Mathilde Krim (Health Policy & Management). *B.S., Geneva (Switzerland), 1948; Ph.D., 1953*

Professor of Clinical Pediatrics

Doris L. Wethers. *B.S., Queens, 1948; M.D., Yale, 1952*

Associate Professor of Clinical Pediatric Virology

Elena B. Klein. *M.D., State Institute of Medicine and Pharmacy (Rumania), 1953; Ph.D., Institute of Microbiology (Rumania), 1972*

Associate Clinical Professor

Farrokh Shahrivar. *M.D., Tehran, 1966*

Assistant Professors

Stephen M. Arpadi (also Public Health) (Epidemiology). *B.A., Antioch (Ohio), 1975; M.D., George Washington, 1982; M.P.H., Columbia, 1991*
Sunita Bhattacharya. *M.B.,B.S., All-India Institute of Medical Sciences, 1968*

Assistant Professors of Clinical Pediatrics

Mary N. B. Horlick. *B.A., Wisconsin, 1968; M.D., New York University, 1976*
Ilene S. Kaufman. *B.A., Pennsylvania, 1979; M.D., 1983*

Assistant Professor of Clinical Child Development

Madeline W. Appell. *B.A., Queens, 1962; M.A., 1963*

Assistant Professor of Clinical Psychology

Harvey Haynes Mar. *B.S., Washington (Seattle), 1972; M.A., Columbia, 1973; Ph.D., 1977*

Assistant Clinical Professors

Dennis Allendorf. *B.S., Georgetown, 1965; M.D., New York Medical College, 1970*
Anastasios Anastasiades. *M.D., Athens, 1950*
Carmelita V. Britton. *B.S., Rensselaer Polytechnic Institute, 1973; M.D., State University of New York (Albany), 1973*
Rafaela Z. Calabio. *B.S., Santo Tomas (Manila, Philippines), 1974; M.D., 1978*
Richard Gunnar Carlson (also Medicine). *B.S., Trinity (Hartford), 1966; M.D., Columbia, 1970*
Alwyn Theodore Cohall. *B.A., Wesleyan, 1976; M.D., College of Medicine and Dentistry of New Jersey, 1980*
Herbert I. Cohen. *M.D., Johns Hopkins, 1949*
Stanley B. Cohen. *B.S., Maryland, 1971; M.D., Rome (Italy), 1979*
Lucia L. Cristinoiu. *M.D., Institute of Medicine & Pharmacy (Bucharest (Romania), 1971*
R. Ragabardial Dwarka. *B.S., Hebrew (Jerusalem), 1965; M.D., 1969*
Melaine Gissen. *B.A., State University of New York (Stony Brook), 1971; M.D., Pittsburgh, 1983*
Ranjeet G. Grover. *M.B.,B.S., Christian (India), 1960*
Diane Hochlerin. *B.S., Brooklyn, 1962; M.D., Women's Medical College of Pennsylvania, 1966*
Fadel M. Hochroth. *B.A., Louisville, 1953; M.D., 1957*
Nancy C. Holahan. *B.S., Fordham, 1966; M.D., College of Medicine and Dentistry of New Jersey, 1970*
Harry Kimmel. *B.A., St. Andrews (Bucharest), 1940; M.D., Bucharest, 1949*
Linda A. Linday. *B.A., Barnard, 1970; M.D., Columbia, 1975*
Catherine Lodyjensky. *M.D., Montreal, 1943*
David S. Mazza. *B.A., Vermont, 1969; M.A., 1971; M.D., 1977*
Charles W. Paley. *B.A., City University of New York (Brooklyn), 1980; State University of New York (Downstate), 1983*
Karen Soren. *B.A., Harvard, 1978; M.D., New York University, 1982*
Shantha Subramaniam. *M.B.,B.S., Madras (India), 1962*
Max F. Van Gilder. *B.S., Tulane, 1967; M.D., 1971*
Radhika Vijayan. *M.D., St. John's (India), 1976*
Elizabeth Watkins. *B.A., Randolph-Macon Women's College, 1947; M.D., Columbia, 1951*

Assistant Clinical Professor of Family Practice

Grace M. Wang. *B.A., Michigan, 1975; M.D., Cornell, 1982*

Associate Research Scientist

Joseph A. Sonnabend. *M.B.,Ch.B., Witwatersrand (South Africa), 1956*

ASSOCIATES IN CLINICAL PEDIATRICS

Dora M. Alvarez, M.D.
Nelly T. Boggio, M.D.
Renata Frenkel, M.D.
Thomas H. Hyatt, Jr., M.D.
Ruth E. Kessler, M.D.
Kusum Khanna, M.B.,B.S.
Richard Gary Merkler, M.D.
Edward A. Nichols, M.D.
Flora Ramirez, M.D.
Melissa Matthews Sedlis, M.D.
Barbara E. Strassberg, M.D.
Thelma Verano-Santiago, M.D.
Priscilla Ware, M.D.

INSTRUCTORS IN CLINICAL PEDIATRICS

Anita Indar Ahuja, M.B.,B.S.
Carlos Emilio Arzeno, M.D.
Cynthia G. Boakye, M.B.,Ch.B.
Dilia M. Castanos, M.D.
Roberto E. Corrales, M.D.
Reethamma Daniel, M.B.,B.S.
Luminita M. David, M.D.
Maria Dominicis, M.D.
Morel Duverseau, M.D.
Yasmin A. Hassan, M.B.,B.S.
Catherine A. Lenz Canary, M.D.
Roberta E. Leon, M.D.
Pleno J. Moise, M.D.
Michael A. Nagel, M.D.
Amelia Reyes, M.D.
Ana B. Soto, M.D.
Geraldine M. Summa, M.D.
Eric C. Weiselberg, M.D.

Pharmacology

David Hosack Professor and Chairman

Brian F. Hoffman. *A.A., Princeton, 1943; M.D., Long Island, 1947*

Professors

J. Thomas Bigger, Jr. (also Medicine). *B.A., Emory, 1955; M.D., Georgia, 1960*
John P. Bilezikian (also Medicine). *B.A., Harvard, 1965; M.D., Columbia, 1969*
Joseph Graziano (in Pediatrics). *B.S., Long Island, 1967; Ph.D., Rutgers, 1971*
Norman Kahn (also Edwin S. Robinson Professor of Dental & Oral Surgery). *B.A., Columbia, 1954; D.D.S., 1958; Ph.D., 1964*
Harold C. Neu (also Medicine). *B.A., Creighton, 1956; M.D., Johns Hopkins, 1960*
Michael R. Rosen (Gustavus A. Pfeiffer Professor) (also Pediatrics). *B.A., Wesleyan, 1960; M.D., State University of New York (Downstate), 1964*
Steven A. Siegelbaum (in the Center for Neurobiology & Behavior). *Ph.D., Yale, 1978*
Andrew L. Wit. *B.S., Bates, 1963; Ph.D., Columbia, 1968*

Adjunct Professors

Ira S. Cohen. *B.A., Columbia, 1969; M.D., Ph.D., New York University, 1974*
Paul F. Cranefield. *B.S., Wisconsin, 1946; Ph.D., 1951; M.D.,Albert Einstein, 1964*
Leslie A. Leinwand. *B.S., Cornell, 1972; Ph.D., Yale, 1977*
Peter K. T. Pang. *B.S., Hong Kong, 1964; M.S., Yale, 1968; Ph.D., 1970*
Robert M. Weiss. *B.S., Franklin and Marshall, 1957; M.D., State University of New York (Downstate), 1960*

Senior Research Scientist

Peter Danilo, Jr. *Ph.D., Columbia, 1974*

Associate Professors

Penelope Altman Boyden. *B.A., Mills College, 1970; M.A., M. Phil, Columbia, 1976; Ph.D., 1979*

Daniel J. Goldberg (in the Center for Neurobiology & Behavior). *Ph.D., Yale, 1974*
Richard B. Robinson. *Ph.D., Illinois, 1975*

Associate Professor of Clinical Medicine

Susan F. Steinberg. *B.S., Massachusetts Institute of Technology, 1972; M.D., Harvard, 1976*

Associate Professor of Clinical Public Health

Alan M. Jeffrey (Environmental Health). *B.S., Hull (United Kingdom), 1966; Ph.D., College of North Wales (United Kingdom), 1970*

Research Scientists

Steven Jay Feinmark. *B.A., Johns Hopkins, 1974; M.S., George Washington, 1977; Ph.D., 1980*
Richard Paul Kline. *B.A., Harvard, 1968; M.S., Pennsylvania, 1970; Ph.D., 1975*
Yvonne Vulliemoz (also Anesthesiology). *M.S., Lausanne, 1958; Ph.D., Paris, 1969*

Adjunct Research Scientist

Kenneth H. Dangman. *B.S., Bucknell, 1971; M.A., M.Phil., Columbia, 1974; Ph.D., 1977*

Assistant Professors

Lisa Ebihara. *B.S., Northwestern, 1975; Ph.D., Duke, 1980; M.D., 1981*
Yoshihiro Ishikawa (also Medicine). *M.D., Yokohoma City University, 1984*
Steve Sorota. *B.S., Connecticut, 1977; Ph.D., 1986*
Cy Aaron Stein (also Medicine). *B.A., Brown, 1974; Ph.D., Stanford, 1978; M.D., Albert Einstein, 1982*
Gea-Ny Tseng. *B.S., National University of Taiwan, 1977; M.S., 1979; M. Phil., 1981; Ph.D., Columbia, 1985*
Judah Z. Weinberger (also Medicine). *B.A., Columbia, 1974; M.A., 1975, M.D., Ph.D., Harvard, 1980*

Adjunct Assistant Professors

Robert M. Clancy. *B.A., St. Louis, 1974; Ph.D., Illinois, 1982*
Edward B. Kirsten. *B.S., Fairleigh Dickinson, 1962; M.S., New York University, 1966; Ph.D., College of the City of New York, 1969*
Daniel E. Lemons (in Rehabilitation Medicine). *B.A., Goshen, 1974; M.S., Portland State, 1978; M. Phil., Columbia, 1982; Ph.D., 1986*
Walter Spinelli. *B.A., Milan (Italy), 1973; M.S., 1978; Ph.D., Columbia, 1984*
Xian-Cheng Yang. *B.S., Peking (Beijing, China), 1982; Ph.D., State University of New York (Buffalo), 1989*

Associate Research Scientists

Donald William Burmeister. *B.S., City College of New York, 1975; Ph.D., City University of New York, 1982*
Stephen M. Dillon. *B.S.E., Pennsylvania, 1976; M.S.E., Ph.D., 1984*
Martha E. Heath (also Rehabilitation Medicine). *B.S., California (Hayward), 1973; M.S., 1975; Ph.D., Cambridge (Great Britain), 1979*
Xiao-Li Ren. *M.D., Shanxi (China), 1976; Ph.D., Beijing (China), 1987*
Dai-Yuan Wang. *M.D., Xijian (Urumuqi, China), 1982*
Jianan Yao. *B.S., Henan (China), 1983; M.S., Beijing (China), 1987; Ph.D., 1990*

SPECIAL LECTURERS

Wilbur Sawyer, M.D.
Hsueh-Hwa Wang, M.D.

At Mary Imogene Bassett Hospital

Assistant Professor of Clinical Pharmacology

Joseph S. Bertino, Jr. (in Medicine). *B.S., State University of New York (Buffalo), 1976; Dr. Pharm., 1978*

At Helen Hayes Hospital

Associate Professor of Clinical Neuropharmacology

Robert S. Sloviter (in Neurology). *B.S., Drexel, 1973; Ph.D., Pennsylvania State, 1978*

Assistant Professor of Clinical Neuropharmacology

Helen E. Scharfman (in Neurology). *B.A., Vassar, 1981; Ph.D., Uniformed Services (Bethesda), 1986*

Physiology and Cellular Biophysics

John C. Dalton Professor and Chairman

Samuel C. Silverstein. *B.A., Dartmouth, 1958; M.D., Albert Einstein, 1963*

Professors

Qais Al-Awqati (also Robert F. Loeb Professor of Medicine). *M.B.,Ch.B., Baghdad, 1962*
Michel Ferin (in Obstetrics & Gynecology and the Center for Reproductive Sciences). *M.D., Louvain, 1964*
Michael Field (also Medicine). *B.A., Chicago, 1953; M.D., Boston, 1959*
Jorge Fischbarg (in Ophthalmology). *M.D., Buenos Aires, 1962; Ph.D., Chicago, 1971*
Claude P. J. Ghez (also Neurology) (in the Center for Neurobiology & Behavior). *B.S., Geneva, 1960; M.D., Harvard, 1964*
Eric R. Kandel (University Professor) (also Psychiatry and Biochemistry & Molecular Biophysics) (in the Center for Neurobiology & Behavior). *B.A., Harvard, 1952; M.D., New York University, 1956*
Arthur Karlin (also Eugene Higgins Professor of Neurology) (also Biochemistry & Molecular Biophysics). *B.A., Swarthmore, 1957; Ph.D., Rockefeller, 1962*
Irving Kupferman (also Psychiatry) (in the Center for Neurobiology & Behavior). *Ph.D., Chicago, 1964*
Frederick R. Maxfield (also Pathology) (in the Center for Neurobiology & Behavior). *B.S., Union, 1971; Ph.D., Cornell, 1977*
David Schachter. *B.S., New York University, 1946; M.D., 1949*
James H. Schwartz (also Neurology) (in the Center for Neurobiology & Behavior and Psychiatry). *B.S., Columbia, 1954; M.D., New York University, 1959; Ph.D., Rockefeller, 1964*

Adjunct Professor

Shu Chien. *M.B., National University of Taiwan, 1954; Ph.D., Columbia, 1957*

Associate Professors

Martin Blank. *B.S., College of the City of New York, 1954; M.D., Columbia, 1957; Ph.D., Cambridge, 1959*

Jane Dodd (in the Center for Neurobiology & Behavior). *Ph.D., Cambridge (England), 1979*
Martin G. Low. *Ph.D., Birmingham (England), 1975*
David M. Stern. *B.S., Yale, 1973; M.D., Harvard, 1978*

Research Scientist

John D. Loike. *B.A., Yeshiva, 1971; Ph.D., 1976*

Adjunct Research Scientist

Herbert H. Lipowsky. *B.S., Polytechnic Institute of Brooklyn, 1966; M.S., 1968; Ph.D., California, 1975*

Assistant Professors

Myles Akabas (also Medicine) (in the Center for Molecular Recognition). *B.A., Cornell, 1977; M.D., Albert Einstein, 1982*
Amy B. Mac Dermott (in the Center for Neurobiology & Behavior). *B.A., Wells, 1973; Ph.D., Vermont, 1978*
Ofra Weinberger. *B.S., Brooklyn, 1976; Ph.D., Harvard, 1981*

Associate Research Scientists

Richard E. Abbott. *Ph.D., Columbia, 1972*
Joseph B. El-Khoury. *M.D., American University of Beirut, 1987*
Adriana B. Marcuzzi. *B.S., National University of Rosario (Argentina), 1979; Ph.D., Iowa, 1988*
Lily M. Soo. *M.S., Baylor, 1964; Ph.D., Texas, 1973*

At St. Luke's-Roosevelt Hospital Center

Associate Professor of Physiological Medicine

Jahar Bhattacharya (in Medicine). *M.B.,B.S., India Institute of Medicine (New Delhi), 1968; M.S., Oxford, 1973; D.Phil., 1976*

Psychiatry

Lawrence Kolb Professor and Chairman

Herbert Pardes. *B.S., Rutgers, 1956; M.D., State University of New York (Downstate), 1960*

At New York State Psychiatric Institute

Professors

Myron Hofer. *B.A., Harvard, 1954; M.D., 1958*
Eric R. Kandel (University Professor) (also Physiology & Cellular Biophysics and Biochemistry & Molecular Biophysics) (in the Center for Neurobiology & Behavior). *B.A., Harvard, 1952; M.D., New York University, 1956*
Herbert D. Kleber. *B.A., Dartmouth, 1956; M.D., Jefferson, 1960*
Donald F. Klein. *B.A., Colby, 1947; M.D., State University of New York (Downstate), 1952*
Richard Mayeux (Gertrude H. Sergievsky Professor) (also Neurology). *B.S., Oklahoma State, 1968; M.D., 1972*

David Shaffer (Irving Phillips Professor of Child Psychiatry) (also Pediatrics). *M.B.,Ch.B., London, 1961; Academic Psychological Medicine, 1969*
Robert L. Spitzer. *B.A., Cornell, 1953; M.D., New York University, 1957*

Professor of Behavioral Biology

Marian W. Fischman. *B.A., Barnard, 1960; M.A., Columbia, 1962; Ph.D., Chicago, 1972*

Professor of Dental & Oral Surgery

Austin H. Kutscher. *B.A., New York University, 1945; D.D.S., Columbia, 1946*

Professor of Genetics & Development

Jurg Ott. *Ph.D., Zurich (Switzerland), 1967; M.S., Washington, 1972*

Professor of Medical Psychology

Irving Kupferman (also Physiology & Cellular Biophysics) (in the Center for Neurobiology & Behavior). *Ph.D., Chicago, 1964*

Professor of Pathology

James E. Goldman. *B.A., Amherst, 1968; M.D., Ph.D., New York University, 1976*

Professors of Public Health

Denise Kandel (Sociomedical Sciences). *Ph.D., Columbia, 1960*
Myrna M. Weissman (Epidemiology). *M.S.W., Pennsylvania, 1958; Ph.D., Yale, 1974*

Professor of Social Sciences

Bruce Dohrenwend (also Public Health) (Epidemiology). *B.A., Columbia, 1950; Ph.D., Cornell, 1955*

Adjunct Professor of Public Health

Joseph A. Califano (Health Policy & Management). *B.A., Holy Cross (Worcester), 1952; LL.B., Harvard, 1955*

Professors of Clinical Psychiatry

Miron Baron. *M.D., Tel Aviv, 1972*
Hector Bird. *B.A., Michigan, 1960; M.D., Yale, 1965*
H. Donald Dunton (in Pediatrics). *M.D., Rochester, 1945*
L. Erlenmyer-Kimling (in Genetics & Development). *B.S., Columbia, 1957; Ph.D., 1960*
Ronald R. Fieve. *B.A., Wisconsin, 1952; M.D., Harvard, 1955*
Archibald R. Foley. *B.A., Queens (Canada), 1943; M.D., 1947; M.S., Columbia, 1962*
Alexander H. Glassman. *B.A., Illinois, 1956; M.D., 1958*
Jack Matthew Gorman. *B.A., Pennsylvania, 1973; M.D., Columbia, 1977*
Barry J. Gurland (John E. Borne Professor) (in the Center for Geriatrics & Gerontology). *M.B.,Ch.B., Capetown, 1955*
Josesph Jaffe (in Neurological Surgery). *B.A., Columbia, 1944; M.D., Baylor, 1957*
Frederic Kass. *B.A., Harvard, 1966; M.D., Johns Hopkins, 1970*
Donald S. Kornfeld. *B.S., Franklin & Marshall, 1950; M.D., Yale, 1954*
Michael Liebowitz. *B.A., Yale, 1965; M.D., 1969*
Roger MacKinnon. *M.D., Columbia, 1950*
Sidney Malitz. *B.S., Tulane, 1943; M.D., Chicago Medical School, 1946*

John M. Oldham. *B.S., Duke, 1962; M.D., Baylor, 1967*
Ethel Person. *B.A., Chicago, 1956; M.D., New York University, 1960*
Frederic M. Quitkin. *B.A., Princeton, 1958; M.D., State University of New York (Downstate), 1962*
John D. Rainer (in Genetics & Development). *M.D., Columbia, 1951*
Ronald O. Rieder. *B.A., Harvard, 1958; M.D., 1964*
James H. Ryan. *B.A., Yale, 1952; M.D., Harvard, 1956*
Michael Stone. *B.A., Cornell, 1954; M.D., 1958*
Bernard T. Walsh. *B.A., Princeton, 1967; M.D., Harvard, 1972*

Professor of Clinical Neurobiology & Behavior

John D. Koester (in the Center for Neurobiology & Behavior). *B.A., Wooster, 1965; M.D., Columbia, 1971*

Professor of Clinical Neurochemistry

Hadassah Tamir (in Anatomy & Cell Biology). *M.S., Hebrew (Jerusalem), 1955; M.D., Israel Institute of Technology, 1959*

Professor of Clinical Neuropsychology

Nancy Sabin Wexler (in Neurology). *Ph.D., Michigan, 1970*

Professors of Clinical Psychology

Anke Ehrhardt. *Ph.D., Dusseldorf, 1969*
Jean Endicott. *B.A., Connecticut (Storrs), 1958; M.A., Columbia, 1959; Ph.D., 1965*
David Friedman. *B.A., Queens (New York), 1965; M.A., 1968; Ph.D., City University of New York, 1972*
Rachel Gittelman-Klein. *B.A., College of the City of New York, 1957; Ph.D., Columbia, 1966*
Heino F. L. Meyer-Bahlburg. *Ph.D., Dusseldorf, 1970*
Judith Rabkin. *B.A., Wellesley, 1958; M.D., New York University, 1967; M.P.H., Columbia, 1974*
Mary Jane Rotheram. *B.A., California (Irvine), 1971; Ph.D., Southern California, 1977*
Harold A. Sackeim. *B.A., Columbia, 1972; B.A., M.A., Oxford (England), 1974; Ph.D., Pennsylvania, 1977*

Professor of Clinical Psychiatric Social Work

Janet B. Williams (in Psychiatry and Neurology). *B.S., Tufts, 1969; M.S., Southeastern Massachusetts, 1972; M.S.W., Columbia, 1974*

Professors of Clinical Public Health

Ruth Bennett (in the Center for Geriatrics & Gerontology and Psychiatry). *Ph.D., Columbia, 1962*
Patricia R. Cohen (Epidemiology). *B.A., Hamline, 1958; Ph.D., New York University, 1968*
Susan E. Hodge (Biostatistics). *B.A., Antioch, 1968; D.Sc., Washington, 1976*

Clinical Professors

Anne E. Bernstein. *B.A., Barnard, 1958; M.D., Albert Einstein, 1962*
Paul A. Bradlow. *B.A., Pennsylvania, 1941; M.A., 1942; M.D., Hahnemann, 1946*
June J. Christmas. *B.A., Vassar, 1945; M.D., Boston, 1949*
Stanley Coen. *B.A., Columbia, 1958; M.D., 1962*
Richard Druss. *B.A., Yale, 1955; M.D., Columbia, 1959*
Richard A. Gardner. *B.A., Columbia, 1952; M.D., State University of New York (Brooklyn), 1956*

Willard Gaylin. *B.A., Harvard, 1947; M.D., Case Western Reserve, 1951*
Robert Glick. *B.A., Yale, 1962; M.D., Columbia, 1966*
Arthur Green (in Pediatrics). *B.A., Rochester, 1951; M.D., Amsterdam, 1955*
Clarice J. Kestenbaum. *B.A., California (Los Angeles), 1950; M.D., 1960*
Frederick M. Lane. *A.B., Cornell, 1949; M.D., Yale, 1953*
Alexander N. Levay. *B.A., Wesleyan, 1953; M.D., Rochester, 1957*
Donald Meyers. *B.S., Franklin & Marshall, 1946; M.D., Jefferson, 1950*
Helen Myers. *B.A., Hunter, 1945; M.D., Columbia, 1957*
Lewis Opler. *B.A., Harvard, 1969; Ph.D., Albert Einstein, 1975; M.D., 1976*
Henry Spitz. *B.A., Lafayette (Pennsylvania), 1961; M.D., New York Medical College, 1965*
Ralph N. Wharton. *B.A., Harvard, 1953; M.D., Columbia, 1957*

Adjunct Research Scientists

Glorisa Canino. *M.A., Puerto Rico, 1969; Ph.D., Temple, 1974*
Itzhak Levav. *M.D., Buenos Aires, 1962; M.S., Columbia, 1969*

Associate Professor of Behavioral Biology

Richard W. Foltin. *B.A., Franklin and Marshall, 1978; Ph.D., Chicago, 1983*

Associate Professor of Genetics & Development

T. Conrad Gilliam. *Ph.D., Missouri, 1981*

Associate Professor of Medical Psychology

Jacques Rutschmann. *D.Sc., Geneva, 1956*

Associate Professor of Neuropathology

Mavis Kaufman. *B.A., Radcliffe, 1941; M.D., New York Medical, 1944*

Associate Professors of Clinical Psychiatry

Amiram Barkai. *M.S., Hebrew (Jerusalem), 1963; Ph.D., 1970*
Jerry Finkel (also Medicine). *B.A., Columbia, 1957; M.D., 1961*
David V. Forrest. *B.A., Princeton, 1960; M.D., Columbia, 1964*
Mindy Fullilove (also Public Health) (Sociomedical Sciences). *B.A., Bryn Mawr, 1971; M.S, Columbia, 1974; M.D., 1978*
Abby Joy Fyer. *B.A., Reed, 1969; M.D., New York University, 1973*
Laurence L. Greenhill. *B.A., Columbia, 1963; M.D., Albert Einstein, 1967*
Wilma M. Harrison. *B.A., Barnard, 1960; M.D., New York Medical College, 1966*
Eric Hollander. *B.A., Brandeis, 1978; M.D., State University of New York (Downstate), 1982*
Steven E. Hyler. *B.A., New York University, 1971; M.D., New York Medical College, 1975*
Charles A. Kaufmann. *B.S., Massachusetts Institute of Technology, 1971; M.D., Columbia, 1977*
Patrick J. McGrath, Jr. *B.S., Seton Hall, 1970; M.D., Columbia, 1974*
Philip R. Muskin. *B.A., Cornell, 1969; M.D., New York Medical College, 1974*
Steven Paul Roose. *B.A., Harvard, 1970; M.D., Mt. Sinai, 1974*
L. Mark Russakoff. *B.A., Clark, 1966; M.D., State University of New York (Downstate), 1971*
Jonathan M. Silver. *B.A., Duke, 1975; M.D., Albert Einstein, 1979*
Andrew Skodol. *B.A., Yale, 1967; M.D., Pennsylvania, 1971*
Jonathan W. Stewart. *B.A., Swarthmore, 1967; M.D., Yale, 1971*

Associate Professor of Clinical Biochemical Psychiatry

George Alexander. *B.S., Hobart, 1949; Ph.D., Rutgers, 1953*

Associate Professors of Clinical Neurobiology & Behavior

Robert D. Hawkins. *B.A., Stanford, 1968; M.A., California (San Diego), 1969; Ph.D., 1973*
Samuel M. Schacher (in Anatomy & Cell Biology). *B.S., Columbia, 1971; M.A., 1974; Ph.D., 1976*

Associate Professors of Clinical Neuropsychology

Isak Prohovnik (in Neurology and Radiology). *M.S., Lund (Sweden), 1980; Ph.D., 1981*
Yaakov Stern (in Neurology and the Sergievsky Center). *B.A., Touro (New York), 1975; M.A., City University of New York, 1982; Ph.D., 1983*

Associate Professors of Clinical Psychology

Gerard E. Bruder. *B.A., Queens, 1966; M.A., 1968; Ph.D., City University of New York, 1971*
W. Crawford Clark. *Ph.D., Michigan, 1958*
Robert Dworkin (in Anesthesiology). *B.A., Pennsylvania, 1971; Ph.D., Harvard, 1977*
Stephen E. Karpiak. *Ph.D., Fordham, 1972*
Salvatore Mannuzza. *Ph.D., City University of New York, 1982*
Michael M. Myers. *B.A., Connecticut (Storrs), 1971; M.S., 1974; Ph.D., 1976*
Richard P. Sloan. *B.S., Union (Schenectady), 1970; M.A., New School, 1974; Ph.D., 1978*
Michael Terman. *B.A., Columbia, 1964; M.S., Brown, 1966; Ph.D., 1968*

Associate Professor of Clinical Psychopharmacology

Thomas Cooper. *M.A., Fairleigh Dickinson, 1970*

Associate Professors of Clinical Public Health

Madelyn S. Gould (Epidemiology). *B.S., City University of New York (Brooklyn), 1972; M.A., Princeton, 1974; M.P.H., Columbia, 1976; Ph.D., 1980*
Deborah S. Hasin (Epidemiology). *B.A., California (Los Angeles), 1972; M.S., Columbia, 1980; M.Phil., Ph.D., 1986*

Associate Clinical Professors

Stan David Arkow. *B.S., State University of New York (Stony Brook), 1973; M.D., Columbia, 1977*
Raymond Bernick. *B.S., Dalhousie, 1956; M.D., 1961*
Stanley Bone. *B.S., Massachusetts Institute of Technology, 1970; M.D., Mt. Sinai, 1974*
Ian Alberto Canino. *B.S., Georgetown, 1966; M.D., Puerto Rico, 1970*
William J. Chambers. *B.A., Princeton, 1967; M.D., Tufts, 1972*
Francine Cournos. *B.S., City College of New York, 1967; M.D., New York University, 1971*
Paula Eagle. *B.A., California (Berkeley), 1974; M.D., New York University, 1978*
Gloria Faretra. *M.D., Georgetown, 1952*
Gerald I. Fogel. *M.D., Michigan, 1962*
Robert Goldstein. *M.D., Chicago, 1965; J.D., Columbia, 1984*
Stanley Heller. *B.A., Yale, 1956; M.D., Columbia, 1960*
Ewald Horwath. *B.A., Chicago, 1975; M.D., 1979*
David Alan Kahn. *B.A., Haverford, 1975; M.D., Columbia, 1979*
Lila J. Kalinich. *B.A., Northwestern, 1966; M.D., 1969*
Stuart L. Kaplan. *B.A., George Washington, 1961; M.D., 1965*
Neil B. Kavey. *B.A., Princeton, 1965; M.D., Columbia, 1969*
Thomas Kranjac. *B.A., New York University, 1970; M.D., New York Medical College, 1975*
Burton A. Lerner. *B.A., Columbia, 1953; M.D., 1957*
Stephen Levitan. *B.A., New York University, 1961; M.D., State University of New York (Buffalo), 1965*

Alan M. Levy. *B.A., Cornell, 1947; M.A., 1948; M.D., New York Medical College, 1954*
Owen William Lewis. *B.A., Pennsylvania, 1972; M.D., Mt. Sinai, 1976*
Eric Marcus (also Social Medicine). *B.A., Columbia, 1965; M.D., Wisconsin, 1969*
Michael Milano. *B.A., Harvard, 1960; M.D., Albany, 1964*
John F. O'Connor. *B.S., Columbia, 1948; M.D., State University of New York (Downstate), 1952*
David Douglas Olds. *B.A., Yale, 1960; M.D., Columbia, 1981*
Seymour Post. *M.D., New York University, 1947*
Eleanor Schuker. *B.A., Swarthmore, 1961; M.D., Columbia, 1965*
Daniel Shapiro. *M.D., Illinois, 1945*
Leonard M. Sheehy. *B.A., Harvard, 1960; M.D., McGill, 1968*
Josef H. Weissberg. *M.D., Albany, 1952*
Daniel T. Williams. *B.A., Columbia, 1965; M.D., Cornell, 1969*

Associate Clinical Professors of Medical Psychology

Gordon G. Ball. *B.A., London, 1956; Ph.D., Stanford, 1963*
Sandra L. Forquer. *B.A., Chatham, 1965; M.Ed., Pittsburgh, 1972; Ph.D., 1977*
Kenneth Frank. *B.A., New York University, 1961; M.S., Columbia, 1964; Ph.D., 1967*
Dolores Kreisman. *B.A., Barnard, 1953; Ph.D., Columbia, 1969*
Wilma Rosen. *B.A., Cedar Crest (Pennsylvania), 1967; M.S., Clark, 1969; M.D., 1973*
Gail A. Wasserman. *B.A., Pennsylvania, 1967; M.D., Illinois, 1970; Ph.D., City University of New York, 1977*

Associate Clinical Professor of Neuropathology

Nicholas J. Willson. *B.S., St. Peter's, 1959; M.D., Seton Hall, 1963*

Associate Clinical Professor of Social Sciences

Carol L. M. Caton (in Public Health) (Sociomedical Sciences). *B.S., Columbia, 1962; M.S.N., Yale, 1965; Ph.D., 1969*

Research Scientist

Morton Levitt. *M.S., George Washington, 1959; Ph.D., Howard, 1966*

Assistant Professors

Peter A. Shapiro (Herbert & Florence Irving Assistant Professor). *B.A., Princeton, 1976; M.D., Columbia, 1980*

Assistant Professor of Neurogenetics

Marcelo Soares. *B.S., M.A., Federal University of Rio De Janeiro (Brazil), 1982; Ph.D., Columbia, 1986*

Assistant Professor of Pathology

Andrew J. Dwork. *B.A., Columbia, 1973; M.D., College of Medicine and Dentistry of New Jersey, 1977*

Assistant Professor of Psychiatric Genetics

Linda M. Brzustowics. *B.A., Harvard, 1982; M.D., Columbia, 1987*

Assistant Professor of Public Health

Karen G. Raphael (Epidemiology). *B.A., Hofstra, 1977; M.A., 1982; Ph.D., 1984*

Adjunct Assistant Professor

Catharine M. Napolitano. *B.A., Newton, 1964; M.A., Fairleigh Dickinson, 1981; Ph.D., Columbia, 1984*

Adjunct Assistant Professor of Anatomy & Cell Biology

Craig H. Bailey (in the Center for Neurobiology & Behavior). *B.A., Lehigh, 1967; M.S., 1969; Ph.D., 1973*

Assistant Professors of Clinical Psychiatry

Richard P. Brown. *M.D., Columbia, 1977*
Lee Steven Cohen. *B.S., The City College of New York, 1980; M.D., State University of New York (Stony Brook), 1982*
Davangere P. Devenand. *M.B.,B.S., Christian (India), 1978*
Michael J. Devlin. *B.A., Princeton, 1978; M.D., Columbia, 1982*
Jennifer I. Downey. *B.A., Harvard, 1967; M.A., California (Berkeley), 1968; M.D., Case Western Reserve, 1976*
Brian A. Fallon. *B.A., Harvard, 1976; M.Ed., 1978; M.D., M.P.H., Columbia, 1985*
Michael B. First. *B.S.E., Princeton, 1978; M.S., M.D., Pittsburgh, 1983*
George R. Gewirtz. *B.A., Columbia, 1979; M.D., 1984*
Arthur E. Gillman. *B.S., Vermont, 1947; M.D., New York Medical College, 1950*
Kenneth Greenspan. *M.D., Albert Einstein, 1963*
Frances R. Levin. *B.S., Brown, 1981; M.D., Cornell, 1985*
Dolores Malaspina. *B.A., Boston, 1974; M.S., Rutgers, 1978; M.D., College of Medicine and Dentistry of New Jersey, 1983*
John Martin (in the Center for Neurobiology & Behavior). *B.A., Rhode Island, 1973; M.A., Columbia, 1974; Ph.D., 1978*
Edward V. Nunes. *B.A., Dartmouth, 1977; M.D., Connecticut, 1981*
Mark Olfson. *B.A., Reed, 1980; M.D., Northwestern, 1984*
William P. Owen. *B.A., Louisville, 1974; M.D., 1978*
Laszlo A. Papp, *M.A., Political Sciences (Hungary), 1978; M.D., Semmelweis School of Medicine (Hungary), 1981*
James B. Parsons. *B.A., Reed, 1975; Ph.D., Rockefeller, 1981; M.D., Miami, 1986*
Joan Prudic. *B.S., Michigan, 1973; M.D., 1977*
Stephen G. Rayport (in Anatomy & Cell Biology and in the Center for Neurobiology & Behavior). *B.A., Harvard, 1975; Ph.D., Columbia, 1981; M.D., 1982*
Franklin R. Schneier. *B.S., Yale, 1979; M.D., Cornell, 1983*
Boris M. Segal. *M.D., First Moscow Medical School, 1951; Ph.D., Moscow Institute, 1963*
Lawrence Sharpe. *M.B.,B.S., London, 1954*
Ezra A. Susser. *B.A., Columbia, 1974; M.D., M.P.H., 1982*
Heather J. Walter. *B.A., Pacific Union, 1971; M.D., Loma Linda, 1974*
Agnes H. Whitaker (in Sergievsky Center). *B.A., Antioch, 1972; M.D., Rutgers, 1976*
Ronald M. Winchel. *B.A., Columbia, 1975; M.A., M.D., Tufts, 1979*

Assistant Professor of Clinical Behavioral Biology

Suzette Evans. *B.S., Syracuse, 1981; Ph.D., Chicago, 1987; M.D., Johns Hopkins, 1990*

Assistant Professors of Clinical Psychology

Xavier Amador. *B.A., State University of New York (Purchase), 1982; M.A., New York University, 1987; Ph.D., 1989*
Susan Bram. *B.A., New York University, 1969*
Melinda Broman. *B.A., Cornell, 1967; M.A., Columbia, 1969; Ph.D., Rutgers, 1977*
Susan E. Carden. *B.A., Fordham, 1979; M.A., New York University, 1984; Ph.D., 1988*
Edward Scott Charles. *B.A., City University of New York, 1965; M.A., 1968; Ph.D., New School for Social Research, 1971*

William P. Fifer. *B.S., Georgetown, 1970; M.A., North Carolina (Greensboro), 1976; Ph.D., 1980*
Richard W. Gaines. *B.A., Middlebury, 1969; Ph.D., New York University, 1985*
Ethan Gorenstein. *B.A., McGill, 1975; Ph.D., Indiana, 1981*
Rita Haggerty. *B.A., Fordham, 1970; Ph.D., State University of New York (Stony Brook), 1976*
Helen Hanesian. *B.S., State University of New York (Buffalo), 1953; M.A., Columbia, 1961; Ed.D., 1966*
Jill M. Harkavy-Friedman. *B.A., Pennsylvania, 1978; M.A., Florida, 1981; Ph.D., 1984*
Donald E. Hutchings (also in Pediatrics). *Ph.D., Columbia, 1965*
Jesse Bernard Levine. *Ph.D., George Washington, 1976*
Laurie S. Miller. *B.S., Cornell, 1986; M.A., Illinois, 1989; Ph.D., 1990*
James R. Moeller. *B.A., Stanford, 1966; M.A., Michigan, 1974; Ph.D., 1976*
Laura H. Mufson, *B.A., Princeton, 1983; Ph.D., Emory, 1988*
John C. Piacentini. *B.S., Oregon, 1980; M.S., Georgia, 1984; Ph.D., 1986*
Michael Seth Quittman. *B.A., Queens (New York), 1968; Ph.D., Purdue, 1974*
Margaret Rosario. *B.A., Princeton, 1975; M.A., Ph.D., New York Univeristy, 1985*
Sergio Rothstein. *B.A., Yeshiva, 1965; Ph.D., 1973*
Harry N. Shair. *B.A., Columbia, 1975; Ph.D., City University of New York (Hunter), 1986*
Cornelis Stokman. *B.A., Nijmegen (Holland), 1962; M.A., Columbia, 1964; Ph.D., 1967*
Brandon G. Yongue. *B.A., Florida, 1977; Ph.D., Illinois, 1985*
Jeffrey Young. *B.A., Yale, 1972; Ph.D., Pennsylvania, 1978*

Assistant Professors of Clinical Psychiatric Social Work

Ruth Corn. *B.A., New York University, 1955; M.S.W., 1968*
Rosa M. Gil. *B.A., Oriente (Cuba), 1961; M.S.W., Fordham, 1968; D.S.W., Adelphi, 1980*
Barbara Von Bulow. *B.A., Duke, 1964; M.S.W., Columbia, 1968*

Assistant Professors of Clinical Public Health

Robert E. Fullilove (Sociomedical Sciences and Health Administration). *B.A., Colgate, 1966; M.S., Syracuse, 1972; Ed.D., Columbia, 1984*
Christina Hoven (Epidemiology). *B.A., Lindenwood, 1966; M.A., Missouri, 1968; M.P.H., Columbia, 1983; M.S., 1987; Dr.P.H., 1988*
John A. Toner (in the Center for the Study of Geriatrics & Gerontology). *Ed.D., Columbia, 1980*
Veronica J. Vieland (Biostatistics). *B.A., Barnard, 1979; M.A., Columbia, 1981; M. Phil., 1984; Ph.D., 1986; M.S., 1988*
Priya J. Wickramaratne (Biostatistics). *B.S., London, 1968; M.S., Stanford, 1970; Ph.D., Yale, 1984*

Assistant Professors of Clinical Social Sciences

Alexander Askenasy. *Ph.D., Columbia, 1962*
Muriel Hammer. *Ph.D., Columbia, 1961*

Adjunct Assistant Professor of Clinical Psychology

Stephen C. Brake. *Ph.D., Texas, 1976*

Assistant Clinical Professors

Geary Edward Ahern. *B.A., Fordham, 1967; M.D., State University of New York (Downstate), 1975*
Morton J. Aronson. *B.A., Temple, 1944; M.D., 1947*
Athanasia Balkoura. *M.D., Athens, 1960*
John Joseph Barsa. *B.S., Massachusetts Institute of Technology, 1973; M.D., Columbia, 1977*
Leah Beck. *M.D., Women's Medical College of Pennsylvania, 1943*

Robinette Bell. *B.A., Smith College, 1951; M.D., Columbia, 1962*
Carol A. Bernstein. *B.A., Bryn Mawr, 1969; M.A., Antioch, 1971; M.D., Columbia, 1980*
Sophia K. Bezirganian. *B.A., Cornell, 1980; M.D., Pennsylvania, 1985; M.P.H., Columbia, 1992*
Ronald Brady. *B.S., Queens, 1961; M.D., Temple, 1967*
Edward N. Brennan. *B.S., Trinity (Hartford), 1951; M.D., Yale, 1955*
Richard Brockman. *B.A., Williams, 1969; M.D., New York Medical College, 1975*
A. Alexis Brosen. *B.A., City College of New York, 1973; M.D., New York University, 1977*
Sydney C. Bush. *M.D., Dartmouth, 1976*
Paul F. Califano. *B.A., Adelphi, 1950; M.D., State University of New York (Downstate), 1954*
Eve Caligor. *B.A., Harvard, 1978; M.D., 1982*
Robert J. Campbell. *B.A., Wisconsin, 1944; M.D., Columbia, 1948*
Raphael B. Campeas. *B.A., Touro (New York), 1975; M.D., Mt. Sinai, 1979*
Janel S. Carino. *B.A., Occidental (California), 1964; M.A., Columbia, 1970; M.D., Albert Einstein, 1976;*
Harvey R. Chertoff. *B.A., Columbia, 1962; M.D., Albert Einstein, 1966*
Leslie L. Citrome. *M.D., McGill, 1983*
Susan R. Clarvit. *B.A., State University of New York (Binghamton), 1976; M.D., Albert Einstein, 1984*
Daniel Elliot Cohen. *B.A., Columbia, 1967; M.D., 1971*
Frances Cohen. *B.A., Harvard, 1971; M.D., Columbia, 1975*
Max P. Cohen. *M.D., New York Medical College, 1947*
Louise Coleman. *M.D., Southern California, 1948*
Jeremy Coplan. *M.B.,Ch.B., Witwatersrand (South Africa), 1983*
Clare E. Cosentino. *B.A., State University of New York (Purchase), 1981; M.A., New York University, 1987; Ph.D., 1991*
Janice L. Cutler. *B.A., Princeton, 1979; M.D., Yale, 1983*
Zira De Fries. *M.D., New York Medical College, 1942*
Susan M. Deakins. *B.A., Northampton, 1958; M.D., Columbia, 1963*
Lisa Deutscher. *B.A., Sarah Lawrence, 1977; M.D., State University of New York (Brooklyn), 1984*
Leonard Diamond. *B.A., Tulane, 1949; M.D., State University of New York (Downstate), 1973*
Carolyn Jory Douglas. *B.A., Princeton, 1976; M.D., Harvard, 1980*
Robert M. Elvove. *B.A., Michigan, 1962; M.D., Chicago, 1966*
Maureen D. Empfield. *M.D., Albert Einstein, 1977*
Charles F. Entelis. *M.D., Virginia, 1974*
Katherine Falk. *B.A., Barnard, 1966; M.D., Mt. Sinai, 1970*
Robert E. Feinstein. *B.A., Michigan, 1974; M.D., New York University, 1978*
Tovah Feldhammer. *B.S., Bologna (Italy), 1971; M.D., Technion-Faculty of Medicine (Israel), 1975*
Alan D. Felix. *B.A., Haverford, 1979; M.D., Columbia, 1983*
Jane S. Ferber. *B.A., Barnard, 1957; M.D., Columbia, 1961*
Sharon L. Fingeroth. *B.A., City University of New York, 1973; M.D., Albert Einstein, 1984*
William A. Fisher. *B.A., Yale, 1976; M.D., Columbia, 1980*
James W. Flax. *M.D., Minnesota, 1974; M.P.H., Columbia, 1980*
Bruce Forester. *B.A., Dartmouth, 1961; M.D., Columbia, 1965*
Eugene A. Friedberg. *M.D., State University of New York (Buffalo), 1958*
Cathy Jayne Friedman. *M.D., State University of New York (Downstate), 1981*
Lee R. Gardner. *B.A., Barnard, 1955; M.D., Columbia, 1959*
Janice L. Gelfand. *B.A., Yale, 1980; M.D., New York University, 1985*
Iona H. Ginsburg (in Dermatology). *B.A., Vassar, 1953; M.D., Columbia, 1957*
David M. Gottesman. *B.S., Wesleyan, 1962; M.D., Albany, 1966*
Flemming G. Graae. *B.A., Rutgers, 1971; M.A., Indiana, 1973; M.D., St. George (Grenada), 1983*
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Elisabeth B. Guthrie (also Pediatrics). *B.A., Sarah Lawrence, 1976; M.D., Albert Einstein, 1981*

Robin M. Hamilton. *B.A., Princeton, 1977; M.D., Pritzker, 1982*
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Leon Lefer. *B.A., New York University, 1941; M.D., Lausanne, 1952*
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Andrew Paul Levin. *M.D., Pennsylvania, 1980*
David Y. Levine. *M.D., New York University, 1961*
Jill R. Linder. *B.A., Smith, 1979; M.D., State University of New York (Buffalo), 1983*
David Charles Lindy. *B.A., Pennsylvania, 1974; M.D., 1981*
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Robert J. Mitchell. *B.A., Harvard, 1972; M.S., 1973; M.D., Yale, 1977*
Joanne Moore. *M.D., Harvard, 1982*
Donna Moreau. *B.A., State University of New York (Stony Brook), 1971; M.D., 1980*
Craig M. Morris. *B.S., City College of New York, 1966; M.D., Albert Einstein, 1970*
Beatrice Moscovici. *M.D., Bucharest (Roumania), 1951*
Serge A. Mosovich. *M.D., Facultad de Medicina (Buenos Aires), 1969; M.P.H., Columbia, 1989*
Kristina H. Muenzenmaier. *B.S., Mainz (West Germany), 1971; M.D., Munich, 1976*

Joseph C. Napoli. *B.A., Fordham, 1968; M.D., Georgetown, 1972*
Roger S. Nathaniel. *B.S., Massachusetts Institute of Technology, 1976; M.D., Cornell, 1980*
Maria A. Oquendo. *B.S., Tufts, 1980; M.D., Columbia, 1984*
Louis Padovano. *B.S., Georgetown, 1952; M.D., 1956*
Patricio R. Paez. *M.D., Chile, 1972*
David Peretz. *B.A., College of the City of New York, 1954; M.A., Columbia, 1955; M.D., New York University, 1959*
Cynthia Perry. *B.A., Pennsylvania, 1978; M.D., Mt. Sinai, 1982*
Daniel Pilowsky. *M.D., Buenos Aires (Argentina), 1976*
Jeffrey M. Pines. *B.A., Columbia, 1969; M.D., 1973*
Patricia Powell. *M.D., Yale, 1987*
Leslie L. Powers. *M.D., Dartmouth, 1975*
Jules M. Ranz. *M.D., New York University, 1966*
Jeffrey S. Rosecan. *B.A., Columbia, 1974; M.D., 1978*
Ronnie G. Rosenberg. *B.A., State University of New York (Stony Brook), 1978; M.D., Yale, 1984*
Barbara R. Rosenfeld. *M.D., Medical College of Pennsylvania, 1965*
Jane L. Rosenthal. *B.A., Michigan, 1977; M.D., George Washington, 1986*
Lyle E. Rosnick. *B.A., Columbia, 1970; M.D., 1974*
Boris Rubinstein. (also Pediatrics) *B.A., Colegio Israelita (Mexico City), 1961; M.D., Nacional (Mexico), 1970; M.P.H., Harvard, 1978*
J. Arturo Sanchez-Lacay. *M.D., Autonomus University of Santo Domingo, 1978*
Diana Pardew Sandberg. *B.A., Rensselaer Polytechnic Institute, 1981; M.D., Albany, 1981*
M. Bruce Sarlin. *B.A., Tulane, 1953; M.D., 1957*
Pellegrino J. Sarti. *B.S., Fordham, 1970; M.D., Bologna, 1977*
Murray David Schane. *B.A., Wayne State, 1961; M.D., Stanford, 1968*
Holly A. Schneier. *B.A., Brandeis, 1981; M.D., Tufts, 1985*
Ann P. Sellew. *B.A., Kenyon (Ohio), 1972; M.D., State University of New York (Buffalo), 1982*
Stephen R. Setterberg. *B.A., Minnesota, 1980; M.D., 1984*
Lawrence Shaderowfsky. *B.A., Chicago, 1956; M.D., New York Medical College, 1960*
Edward M. Shelley. *B.A., Columbia, 1960; M.D., State University of New York (Downstate), 1958*
Charles Siegal. *B.A., New York University, 1954; M.D., State University of New York (Downstate), 1958*
Michael A. Silver. *B.A., State University of New York (Buffalo), 1975; M.Ed., 1976; M.D., State University of New York (Downstate), 1984*
Merianne B. Singer. *B.A., Yale, 1980; M.D., Columbia, 1984*
Mark F. Sorensen. *B.A., Duke, 1980; M.D., Columbia, 1984*
Frieda H. Spady. *B.S., Columbia, 1963; M.D., New York Medical College, 1967*
H. David Stein. *B.A., Brandeis, 1975; M.D., Columbia, 1979*
Gloria Jean Stern. *B.A., Barnard, 1961; M.D., New York University, 1976*
Laurie Ann Stevens. *B.A., Yale, 1975; M.D., Columbia, 1979*
Ellen M. Stevenson. *M.D., Columbia, 1982*
David H. Strauss. *B.S., State University of New York (Binghamton), 1981; M.D., Cornell, 1985*
Nancy Kaplan Tancer. *B.A., Cornell, 1979; M.D., College of Medicine and Dentistry of New Jersey, 1984*
Nina Toshav. *B.A., Reed, 1967; M.D., Rochester, 1972*
Eleanor M. Townsend. *B.A., Sarah Lawrence, 1957; M.D., Columbia, 1961*
Brian Trappler. *M.B.,Ch.B., Witwatersrand (South Africa), 1974*
Ann R. Turkel. *B.A., Barnard, 1947; M.D., Albany, 1952*
Martin Weiler. *B.A., Syracuse, 1949; M.A., Columbia, 1951; M.D., Chicago, 1954*
Steven L. Weinstein. *B.A., Brooklyn, 1962; M.D., Chicago, 1966*
Lilliam R. Wong-Ryan. *B.S., Fairleigh Dickinson, 1979; M.D., Universidad Central del Este (Dominican Republic), 1983*
Richard B. Zimmer. *B.A., Brandeis, 1971; M.D., Albert Einstein, 1974*

Assistant Clinical Professors of Medical Psychology

Phillip Adams. *Ph.D., Georgia State, 1986*
Aryeh Anavi. *Ph.D., Boston, 1963*
Elizabeth W. Auricchio. *Ph.D., Fordham, 1972*
Susan P. Brinkworth. *B.A., Reading (Berkshire, England), 1973; M.A., Yeshiva, 1980; Ph.D., 1983*
Joan Busner. *B.A., New College (Sarasota Florida), 1978; M.A., Adelphi, 1981; Ph.D., 1984*
Martha Davis. *B.A., Rochester, 1963; M.S., Albert Einstein, 1967; Ph.D., 1973*
Victor De La Cancela. *B.A., City College of New York, 1974; M.Phil., 1979; Ph.D., 1981*
Theresa M. Exner. *B.A., La Salle (Philadelphia), 1977; Ph.D., Connecticut, 1986*
Walter Isaac Gadlin. *Ph.D., New York University, 1968*
Raymond R. Goetz. *Ph.D., Yeshiva, 1983*
Kenneth Gorfinkle. *B.A., Brandeis, 1976; Ph.D., New School for Social Research, 1991*
Meg S. Kaplan, *B.A., New York University, 1970; M.A., 1972; Ph.D., 1985*
Deborah Liner. *B.A., Pennsylvania, 1976; M.A., Emory (Atlanta), 1980; Ph.D., Georgia (Atlanta), 1989*
Letty Pogul Munz. *Ph.D., Columbia, 1974*
Eric G. Redlener. *M.A., Pennsylvania, 1981; Ph.D., Hofstra, 1985*
Robert S. Schachter. *Ed.D., Boston, 1975*
Dianne E. Schechter. *B.A., Rutgers, 1977; M.S., 1981; Ph.D., 1987*
Elizabeth Squires-Wheeler. *B.A., Pennsylvania, 1967; Ph.D., Columbia, 1986*
Susan M. Sussmann. *B.A., Cornell, 1976; Ph.D., American (Washington), 1983*

Assistant Clinical Professor of Pediatric Psychology

Jeannette J. Jansky. *M.S., College of the City of New York, 1960; Ph.D., Columbia, 1970*

Assistant Clinical Professor of Pediatrics

Jane Eliot Fried. *B.A., Vassar, 1964; M.D., Columbia, 1970*

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Paul M. Berger-Gross. *B.S., Massachusetts, 1977; Ph.D., City University of New York, 1985*
Susan A. Brunelli. *B.A., Massachussetts, 1976; Ph.D., Hunter, 1986*
Mark Gerald. *B.A., City College of New York, 1966; M.A., Columbia, 1975; M.Ed., 1976; Ph.D., New York University, 1984*
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Paul M. Ramirez. *B.A., Lehman, 1973; M.A., New York University, 1976; M.A., City College of New York, 1980; Ph.D., 1989*
Robert I. Watson, Jr. *B.A., Wesleyan, 1969; M.D., Ph.D., Harvard, 1974*

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Carla Daichman. *B.A., New York University, 1969; M.S.W., Columbia, 1971*
Miriam Gibbon. *B.A., Antioch, 1954; M.S.W., Columbia, 1957*
Betty Jeanne Kass. *B.A., Goucher, 1969; M.S., Columbia, 1973*
Bobba Jean Moody. *B.A., Hunter, 1964; M.S.W., Fordham, 1968*
Nettie Terestman. *B.A., Hunter, 1938; M.S., Columbia, 1940; D.S.W., 1963*
Jane A. Waters. *B.A., Wellesley, 1967; M.S., Simmons, 1972*

Assistant Clinical Professor of Public Health

Elie S. Valencia (Sociomedical Sciences). *B.A., Columbia, 1980; M.A., State University of New York (Binghamton), 1982; J.D., Rutgers, 1989*

Associate Research Scientists

Samuel W. Anderson. *B.A., George Washington, 1958; Ph.D., Harvard, 1965*
David P. Birkett. *M.B.,Ch.B., South Wales, 1957*
Richard L. Blumenthal. *B.A., Cornell, 1947; M.A., New School for Social Research, 1951; Ph.D., New York University, 1961*
Lirio S. Covey. *Ph.D., City University of New York, 1983*
Cynthia L. Crown. *B.A., Maryland, 1978; M.A., 1980; Ph.D., Delaware, 1984*
Richard Feldman. *Ph.D., Columbia, 1966*
Robin S. Garfinkel. *B.A., Pennsylvania, 1969; M.A., Columbia, 1972; M.Ed., 1974; Ph.D., 1975*
Basalingappa Hungund. *B.S., Kanatah (Dharwar, India), 1962; M.S., 1964; Ph.D., National Chemical Laboratory (Poona, India), 1968*
Thomas Lehner. *Ph.D., Vienna (Austria), 1987*
Ee-Sing Lo. *Ph.D., Shanghai Second Medical College (China), 1978*
John Nee. *B.S., National University of Taiwan, 1966; Ph.D., Pennsylvania State, 1973; M.P.H., Columbia, 1977*
Arthur S. Perumal. *B.S., Madras, 1958; M.S., 1963; Ph.D., Indian Institute of Science, 1969*
Graham F. Pringle. *Ph.D., New York University, 1982*
Kurt Salzinger. *Ph.D., Columbia, 1954*
Suzanne Salzinger. *Ph.D., Columbia, 1964*
Makoto Shimada. *M.D., Keio (Japan), 1986*
Raymond F. Suckow. *B.S., Columbia, 1967; M.S., St.John's (New York), 1970; Ph.D., 1978*
David Sulzer. *B.S., Michigan, 1979; M.S., University of Florida, 1981; Ph.D., Columbia, 1988*
Patricia A. Warne. *B.A., Upsala, 1972; Ph.D., Columbia, 1982*
David E. Wilder. *Ph.D., Columbia, 1959*
Yatian Zhang. *M.D., Shanghai First Medical College (China), 1971; Ph.D., State University of New York (Brooklyn), 1987*

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INSTRUCTOR IN CLINICAL SOCIAL WORK

Stephen D. Rosenheck, M.S.W.

At Mary Imogene Bassett Hospital

Assistant Professor of Clinical Psychiatry

Celeste A. Johns. *B.A., Vassar, 1975; M.D., New York University, 1979*

Assistant Clinical Professor

J. Stewart F. Thomson. *M.B.,Ch.B., Edinburgh, 1963*

Assistant Clinical Professors of Medical Psychology

John E. Denny. *Ph.D., Massachusetts, 1971*
Charles W. Lamb. *Ph.D., Ohio State, 1960*

ASSOCIATE IN CLINICAL PSYCHIATRY

Peter M. Johngren, M.D.

At Harlem Hospital Center

Clinical Professor

James L. Curtis. *B.A., Albion, 1944; M.D., Michigan, 1946*

Assistant Professors of Clinical Psychiatry

Stephen L. Bennett. *B.S., Queens, 1949; M.D., Cornell, 1953*
Henry L. McCurtis. *M.D., Stanford, 1974*
Peter H. Schween. *M.D., Hamburg (Germany), 1955*

Assistant Clinical Professors

Madeline Amiel. *M.D., Paris (France), 1957*
Michel Antoine, *B.S., The City University of New York (Brooklyn), 1976; M.D., State University of New York (Downstate), 1980*
Fred Asiedu-Frimpong. *M.B.,Ch.B., Ghana, 1972*
Shale Brownstein. *B.A., State University of New York (Buffalo), 1955; M.D., 1959*
Robert B. Clark. *B.A., Temple, 1959; D.O., Philadelphia College, 1963*
Colin R. Cook. *M.B.,B.S., London (England), 1951*
Dewitt L. Crandell. *M.D., Arkansas, 1955*
George Isaac. *B.S., St. Albert's College (India), 1960; M.B.,B.S., Kerala (India), 1966*
Stanislaw P. Jonas. *M.D., Medical Academy (Warsaw), 1958*
Beverly H. Lituchy. *B.A., Brooklyn, 1957; M.D., State University of New York (Downstate), 1961*
Mark R. Mankoff. *B.A., Brooklyn, 1959; M.D., Albert Einstein, 1963*
Raymond Raskin. *B.A., New York University, 1942; M.D., 1946*
Hana Rostain. *M.D., Buenos Aires, 1952*
Michael M. Scimeca. *B.A., Manhattan, 1968; M.D., Texas (San Antonio), 1978*
Sady Sultan. *M.D., Universidad Central de Venezuela, 1971*
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INSTRUCTORS *(continued)*

Joyce P. Kellawon, M.D.
Francky Merlin, M.D.
Tummala P. Naidu, M.D.
Robert M. Peprah, M.D.
Subramanyam Rajagopal, M.D.
Carl J. Saint-Preux, M.D.
Earl D. Schwartz, M.D.
Dilip A. Shah, M.D.
Yogasaudari Thiagarajah, M.D.
Cristina S. Weldt, M.D.
Robert Wilkins, M.D.

INSTRUCTOR IN CLINICAL PSYCHOLOGY

Paula J. Owens, Ph.D.

At Helen Hayes Hospital

Assistant Clinical Professor

Karl J. Schroeder. *B.A., Notre Dame, 1970; M.D., Columbia, 1974*

At Morristown Memorial Hospital

Assistant Clinical Professors

Richard A. Dickes. *B.A., Columbia, 1963; M.D., Albert Einstein, 1967*
Cary L. Hamlin. *B.S., Pittsburgh, 1971; M.D., 1975*
Harvey M. Hammer. *B.A., Cornell, 1956; M.D., New York Medical College, 1960*

LECTURER

Roger B. Granet, M.D.

ASSOCIATE IN CLINICAL PSYCHIATRY

Sherry Barron-Seabrook, M.D.

At Overlook Hospital

Assistant Clinical Professors

Albert M. Bromberg. *B.S., William & Mary, 1953; M.D., Duke, 1957*
Linus Root. *B.S., Georgetown, 1953; M.D., 1957*
A. Ronald Sorvino. *B.S., St. John's (New York), 1954; M.D., State University of New York (Downstate), 1958*

LECTURER

Morton Friedman, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Psychiatry

Sigurd Ackerman. *B.A., Harvard, 1962; M.D., Tufts, 1966*

Associate Professor of Clinical Psychiatry

Howard M. Klar. *B.A., Brooklyn, 1969; M.D., State University of New York (Downstate), 1976*

Associate Professor of Clinical Psychology

Harry Kissileff (in Medicine). *B.A., Pennsylvania, 1962; Ph.D., 1966*

Associate Clinical Professors

Donald B. Brown. *B.A., Cornell, 1961; M.D., Case Western Reserve, 1965*
Richard C. Friedman. *B.A., Bard, 1961; M.D., Rochester, 1966*
Stanley Heller. *B.A., Yale, 1956; M.D., Columbia, 1960*
Gary Lee Lefer. *B.S., Stanford, 1962; M.D., Georgetown, 1966*
David D. MacDonald. *B.S., Oregon, 1945; M.D., Tufts, 1949*
Howard Millman. *B.A., Cornell, 1955; M.D., New York University, 1969*
Stephen P. Reibel. *B.A., Harvard, 1957; M.D., 1961*
George Satran. *B.A., Columbia, 1952; M.D., New York University, 1956*
Joel Solomon. *M.D., Lausanne, 1968*
William M. Tucker. *B.A., Harvard, 1962; M.A., Yale, 1965; M.D., Columbia, 1969*

Associate Clinical Professors of Medical Psychology

Susan Winship Coates. *B.A., Sarah Lawrence, 1962; M.A., Vassar, 1968; Ph.D., New York University, 1976*
James D. Meltzer. *B.A., Columbia, 1968; Ph.D., New York University, 1973*

Assistant Professors of Clinical Psychiatry

Shepard J. Kantor. *B.A., Colby, 1965; M.D., Johns Hopkins, 1969*
Larry Kirstein. *B.A., Clark, 1967; M.D., State University of New York (Downstate), 1971*
Rocco F. Marotta. *B.A., Manhattan, 1970; Ph.D., City University of New York, 1977; M.D., Cornell, 1985*

Assistant Professor of Clinical Psychology

Gary K. Zammit. *B.A., Oakland, 1979; M.A., 1980; Ph.D., Toledo, 1987*

Assistant Clinical Professors

Gail B. Allen. *B.A., Wellesley, 1957; M.D., New York University, 1961*
Frederic A. Alling. *B.A., Princeton, 1952; M.D., Columbia, 1961*
Alex Caemmerer, Jr. *B.A., Princeton, 1944; M.D., Columbia, 1947*
Ralph Colp, Jr. *B.A., Indiana, 1945; M.D, 1949*
Nathaniel Donson. *B.A., Cornell, 1958; M.D., New York University, 1962*
Bruce W. Fader. *B.A., New York University, 1963; M.D., Miami, 1967*
John A. Fogelman. *B.A., Columbia, 1959; M.D., State University of New York (Downstate), 1964*
Janusz G. Gorzynski. *M.D., Academy of Medicine (Warsaw), 1963*
James G. Katis. *B.A., Wesleyan, 1956; M.D., McGill, 1960*
Leo Kron. *M.D., British Columbia, 1971*
James M. McGowan. *B.A., Notre Dame, 1960; M.D., Kentucky, 1964*
John A. Milici. *B.A., Yale, 1947; M.D., Geneva (Switzerland), 1957*
Paul William Nassar. *B.A., New York University, 1963; M.D., Rome, 1968*
Michael A. Pawel. *B.A., Wesleyan, 1967; M.D., Albert Einstein, 1971*
Arthur M. Perlman. *B.A., Columbia, 1957; M.D., State Univeristy of New York (Buffalo), 1961*
Daniel Pilowsky, *B.A., Universidad Chile (Santiago, Chile), 1973; M.D., Universidad Bueno Aires (Argentina), 1976*
Kenneth Porter. *B.A., Harvard, 1963; M.D., Albert Einstein, 1969*
Rebecca A. Prussin. *B.A., California (Santa Cruz), 1973; M.D., Northwestern, 1983*
Jonathan E. Rosenfeld. *B.A., Columbia, 1969; M.Phil., 1975; M.D., Ph.D., 1976*
Robert D. Scharf. *B.S., Union, 1966; M.D., Albert Einstein, 1970*
Steven G. Wager. *B.A., Washington (St. Louis), 1975; M.D., Case Western Reserve, 1980*
Peter J. Weiden. *B.A., Swarthmore, 1977; M.D., State University of New York (Stony Brook), 1981*
Henry W. J. Weisman. *B.A., Columbia, 1973; M.D., Monterrey, 1978*
Harvey L. White. *B.A., Harvard, 1959; M.D., New York Medical College, 1964*
C. Philip Wilson. *B.A., Yale, 1942; M.D., Columbia, 1945*

Assistant Clinical Professors of Medical Psychology

Lewis Aron. *M.A., St. John's, 1975; Ph.D., 1980*
Philip M. Bromberg. *B.A., New York University, 1953; Ph.D., 1967*
Allan A. Cassorla. M.A., City University of New York, 1984; *M.Phil., Ph.D., 1986*
Barbara R. Cohn. *B.A., Indiana, 1965; Ph.D., New York University, 1974*
Robert A. Cutick. *B.A., Brooklyn, 1957; M.D., Pennsylvania, 1961; Ph.D., 1962*

SPECIAL LECTURERS

Harry R. Potter, M.D.
John L. Schimel, M.D.
Miltiades Zaphiropoulos, M.D.

LECTURERS

Joseph Edward Arleo, M.D.
William C. Crain, M.D.
Paul Dince, M.D.
Juan-Carlos Echevarria, M.D.

LECTURERS *(continued)*

Gloria Friedman, M.D.
Maurice R. Green, M.D.
Norman S. Handelman, M.D.
Jay Kwawer, M.D.
Richard Lasky, Ph.D.
Lois R. Mound, M.D.
Dagmar G. O'Connor, M.D
Dale H. Ortmeyer, Ph.D.
Arthur J. Rudy, Ph.D.

ASSOCIATES IN CLINICAL PSYCHIATRY

Joshua Algaze, M.D.
Ted Eugene Becker, Jr., M.D.
William H. Brownlee, M.D.
Lucy E. Collins, M.D.
Stephen C. Glassberg, M.D.
Sonia W. Hyman, M.D.
Lauma U. Katis, M.D.
Henry Clay Mallard, M.D.
M. Daniel Nienaltow, M.D.
Mitchell Rosenthal, M.D.
Carlotta L. Schuster, M.D.
Ruth Szmarag, M.D.

ASSOCIATES IN CLINICAL PSYCHOLOGY

Lisa Mann, Ph.D.
Phyllis L. Sloate, Ph.D.

INSTRUCTORS IN CLINICAL PSYCHIATRY

Peter Aldin, M.D.
Cyrus Ayromlooi, M.D.
Arline C. Caldwell, M.D.
Paul W. De Bell, M.D.
Hanne E. Favelukes, M.D.
Harold H. Fogelman, M.D.
Elizabeth C. Frischauf, M.D.
David B. Gandler, M.D.
Shirin Ghaemmaghami, M.D.
Terry J. Golash, M.D.
Joel Gonchar, M.D.
Robert A. Herman, M.D.
David K. Jordan, M.D.
Kenneth R. Jungblut, M.D.
Marvin Roy Kremberg, M.D.
Ulla K. Laakso, M.D.

INSTRUCTORS *(continued)*

Zev W. E. Labins, M.D.
Woon Soon Lee, M.D
Fredrick John Matzner, M.D.
Alan Medina, M.D.
Gregory A. Miller, M.D.
Helen G. Muhlbauer, M.D.
Henry A. Paul, M.D.
V. Rachel Phillips, M.D.
Henry A. Remet, M.D.
George Edward Rowan, M.D.
Edith B. Rubenstein, M.D.
Jeffrey H. Sacks, D.O.
Morisa Schiff-Mayer, M.D.
Keith Sedlacek, M.D.
Jane Simon, M.D.
Martha C. Troutman, M.D.
Maria L. Velez, M.D.
David S. Weinberger, M.D.
Pauline E. Weiss, M.D.
Barbara Wilson, M.D.
Douglas P. Wornell, M.D.
Jane Zirin, M.D.
Joseph A. Zito, M.D.

INSTRUCTORS IN CLINICAL PSYCHOLOGY

Maria R. Derevenco, Ph.D.
Allan Geliebter, Ph.D.
Shoshana M. Goldman, Ph.D.
Nancy A. Kochanowicz, Ph.D.
Peter G. Lincoln, Ph.D.
Karen E. Moncher, Ph.D.
Pasqual J. Pantone, Ph.D.
Marcia Rosen, Ph.D.
Barbara B. Thacher, Ph.D.

Public Health

Joseph Delamar Professor and Dean

Allan Rosenfield (also Obstetrics & Gynecology) (in the Center for Population & Family Health). *B.A., Harvard, 1955; M.D., Columbia, 1959*

Biostatistics

Professor and Division Head

Paul Meier (also Levene Professor of Statistics). *B.S., Oberlin, 1945; M.A., Princeton, 1947; Ph.D., 1951*

Professor

Joseph L. Fleiss (also Mathematical Statistics). *B.A., Columbia, 1959; M.S., 1961; Ph.D., 1967*

Professor of Clinical Public Health

Susan E. Hodge (in Psychiatry). *B.A., Antioch, 1968; D.Sc., Washington, 1976*

Adjunct Senior Research Scientist

Neal W. Chilton. *B.S., College of the City of New York, 1939; D.D.S., New York University, 1943; M.P.H., Columbia, 1946*

Associate Professors

Bruce Levin (in the Sergievsky Center). *B.A., Columbia, 1968; M.A., Harvard, 1972; Ph.D., 1974*
Shaw-hwa Lo (also Statistics). *B.S., National Taiwan University, 1975; M.A., California (Santa Barbara), 1978; Ph.D., California (Berkeley), 1981*
Wei-Yann Tsai. *B.S., National Chung-Kung University (Taiwan), 1974; M.S., New Brunswick, 1978; Ph.D., Wisconsin (Madison), 1982*

Research Scientist

Patrick Shrout. *B.A., St. Louis, 1972; Ph.D., Chicago, 1976*

Assistant Professors

Melissa D. Begg. *B.S., Fairfield, 1985; Sc.D., Harvard, 1989*
Myunghee Paik (in the Sergievsky Center). *B.S., Seoul National, 1982; M.S., Pittsburgh, 1984; Ph.D., 1987*

Adjunct Assistant Professors

Katherine Freeman. *B.A., State University of New York (Binghamton), 1971; M.S., Massachusetts, 1973; Dr. P.H., Columbia, 1982*
Donald C. Ross. *B.A., Rochester, 1955; M.A., North Carolina, 1957; Ph.D., 1960*

Assistant Professors of Clinical Public Health

Veronica J. Vieland (in Psychiatry). *B.A., Barnard, 1979; M.A., Columbia, 1981; M. Phil., 1984; Ph.D., 1986; M.S., 1988*
Alan D. Weinberg. *B.S., Rutgers, 1975; M.S., Columbia, 1991*
Priya J. Wickramaratne (in Psychiatry). *B.S., London, 1968; M.S., Stanford, 1970; Ph.D., Yale, 1984*

SPECIAL LECTURER

Livia Turgeon, M.S.

LECTURERS

Mark Davies, M.P.H.
John P. Orazem, Ph.D.

INSTRUCTOR

Cecilia A. Hale, Ph.D.

Environmental Sciences

Professor of Pharmacology and Division Head

Joseph Graziano (in Pediatrics). *B.S., Long Island, 1967; Ph.D., Rutgers, 1971*

Professors

Leonard C. Harber (also Richard & Mildred Rhodebeck Professor of Dermatology). *B.A., Johns Hopkins, 1949; M.D., New York University, 1953; M.S., 1959*
I. Bernard Weinstein (also Frode Jesen Professor of Medicine) (also Genetics & Development) (in the Comprehensive Cancer Center). *B.S., Wisconsin, 1952; M.D., 1955*

Associate Professors

Vincent T. Covello. *B.A., Cambridge, 1971; M.A., 1973; Ph.D., Columbia, 1976*
Frederica P. Perera. *B.A., Radcliffe, 1963; M.P.H., Columbia, 1976; Dr.P.H., 1981*
Regina M. Santella. *B.S., Brooklyn, 1969; M.S., Massachusetts, 1971; Ph.D., City University of New York, 1976*
Marco Zaider (also Radiation Oncology). *M.S., Bucharest, 1968; Ph.D., Tel Aviv, 1976*

Associate Professor of Occupational Medicine

Paul W. Brandt-Rauf (in Medicine). *B.S., Columbia, 1970; M.S., 1973; Sc.D., 1974; M.D., 1979; M.P.H., 1980*

Adjunct Associate Professor

James A. Hathaway. *B.A., California (Los Angeles), 1964; M.D., 1967; M.P.H., 1969*

Associate Professors of Clinical Public Health

Alan M. Jeffrey (in Pharmacology). *B.S., Hull (United Kingdom), 1966; Ph.D., North Wales, 1970*
Jeanne M. Stellman. *B.S., City College of New York, 1968; Ph.D., 1972*

Associate Clinical Professor

Robert Lewy (also Medicine). *B.A., Rochester, 1967; M.D., College of Medicine and Dentistry of New Jersey, 1971*

Assistant Professors

Adelaide M. Carothers. *B.A., New York University, 1973; M.S., 1976; Ph.D., 1979*
Mary S. Matsui (in Dermatology). *B.A., Knox, 1973; M.S., Drexel, 1979; Ph.D., Columbia, 1986*

Adjunct Assistant Professors

Michael D. Goldstein. *B.S., State University of New York (Stony Brook), 1979; M.D., Columbia, 1983; M.P.H., 1987*
Lillian P. Langseth. *B.A. Fairleigh Dickinson, 1961; M.S., New York University, 1968; Dr.P.H., Columbia, 1990*
Jack Mayer. *M.D., New York University, 1971; M.P.H., Columbia, 1990*

Assistant Professors of Clinical Public Health

Leslie R. Andrews. *B.S., Providence College, 1968; M.A., New York University, 1975; Dr.P.H., Columbia, 1985*
L. Fleming Fallon, Jr. *B.A., Colby, 1972; M.A., Case Western Reserve, 1973; M.S., Wagner, 1977; M.B.A., New Haven, 1979; Ph.D., St. Lucia (El Paso), 1980; M.D., St. George's, 1984; M.P.H., Columbia, 1986*
Henry Hermo, Jr. *B.S., Fairleigh Dickinson, 1961; M.A., Montclair, 1966; Dr.P.H., Columbia 1985*

Assistant Clinical Professors

Edward A. Christman. *B.S., Ohio, 1965; M.S., Rutgers, 1974; Ph.D., 1977*
O. Bruce Dickerson. *M.D., Missouri, 1962; M.P.H., California (Los Angeles), 1966*
Jan Schwarz-Miller. *B.A., Hampshire (Massachusetts), 1976; M.D., Tel Aviv (Israel), 1984; M.P.H., Columbia, 1991*
Marina Stefanidis. *B.A., Case Western Reserve, 1984; M.S., 1986; Dr.P.H., Columbia, 1990*

Assistant Clinical Professor of Ophthalmology

Louis D. Pizzarello. *B.A., Colgate, 1971; M.P.H., Harvard, 1974; M.D., Virginia, 1975*

Associate Research Scientist

Yu-Jing Zhang. *M.S., Military Medical College (China), 1985; M.D., Xian Medical University (China), 1982*

SPECIAL LECTURER

Dezider Grunberger, Ph.D., Sc.D.

LECTURERS

Lawrence D. Budnick, M.D., M.P.H.
Vincent Coluccio, Dr.P.H.
Jean B. Cropper, M.P.H.
Herman Ellis, M.D.
Michael McCann, Ph.D.
Thomas T. Shen, Ph.D.
Haig Michael D. Utidjian, M.B.,B.S.

Epidemiology

Associate Professor and Acting Division Head

Bruce G. Link (in Psychiatry). *B.A., Earlham, 1971; M.S. Columbia, 1980; Ph.D., 1982*

Professors

Bruce P. Dohrenwend (in Psychiatry). *B.A., Columbia, 1950; M.A., 1951; Ph.D., Cornell, 1955*
W. Allen Hauser (also Neurology) (in the Sergievsky Center). *B.A., Case Western Reserve, 1958; M.D., St. Louis, 1962*
Thomas A. Pearson. *B.A., Johns Hopkins, 1973; M.D., M.P.H., 1976; Ph.D., 1983*
Myrna Weissman (in Psychiatry). *M.S.W., Pennsylvania, 1958; Ph.D., Yale, 1974*

Adjunct Professor

Cladd E. Stevens. *B.A., Pomona College, 1963; M.D., Baylor, 1968; M.P.H., Washington (Seattle), 1974*

Professor of Clinical Public Health

Patricia R. Cohen (Epidemiology) (in Psychiatry). *B.A., Hamline, 1958; Ph.D., New York University, 1968*

Clinical Professor

William T. Friedewald (also Medicine). *B.S., Notre Dame, 1959; M.D., Yale, 1963*

Associate Professors

Maureen C. Hatch. *B.A., Manhattanville, 1963; M.P.H., Columbia, 1979; Ph.D., 1983*
Elmer Struening. *B.S., Hastings, 1949; M.S., Purdue, 1951; Ph.D., 1957*

Adjunct Associate Professor

Jennie K. Kline (in the Sergievsky Center). *B.A., Chicago, 1972; M.S., Columbia, 1974; M. Phil., 1975; Ph.D., 1977*

Associate Professors of Clinical Public Health

Leslie Davidson (also Pediatrics) (in the Sergievsky Center). *B.A., Harvard, 1969; M.D., Columbia, 1978*
Inge F. Goldstein. *B.A., Wellesley, 1951; M.S., Pittsburgh, 1956; M.S., Columbia, 1968; Dr. P.H., 1976*
Madelyn S. Gould (in Psychiatry). *B.S., Brooklyn College, 1972; M.A., Princeton, 1974; M.P.H., Columbia, 1976; Ph.D., 1980*
Deborah S. Hasin (in Psychiatry). *B.A., California (Los Angeles), 1972; M.S., Columbia, 1980; M. Phil., 1985; Ph.D., 1986*
Alfred I. Neugut (also Medicine). *B.A., Columbia, 1972; M.D., Ph.D., 1977; M.P.H., 1983*
Ruth Ottman (in the Sergievsky Center). *B.A., California (Berkeley), 1975; Ph.D., 1980*
Steven Shea (also Medicine). *B.A., Harvard, 1968; M.A., Yale, 1971; M.D., Columbia, 1979; M.S., Harvard, 1985*

Associate Clinical Professor

L. David Carmichael (also Medicine). *B.A., Harvard, 1969; M.D., Albert Einstein, 1976*

Assistant Professors

Stephen M. Arpadi (also Pediatrics). *B.A., Antioch (Ohio), 1975; M.D., George Washington, 1982; M.P.H., Columbia, 1982*
Maureen S. Durkin (in the Sergievsky Center). M.P.H., Columbia, 1985; *Dr.P.H., 1988*
Pamela Factor-Litvak. *B.A., Rochester, 1977; M.S., Harvard, 1979; Ph.D., Columbia, 1992*
Marilie D. Gammon. *B.S., California (Berkeley), 1974; M.P.H., Washington (Seattle), 1982; Ph.D., Yale, 1989*
Richard M. Garfield (also Nursing). *B.A. Hahnemann, 1976; B.A., Beacon, 1977; M.P.H., Columbia, 1980; Dr. P.H., 1985; M.S., 1986*
Karen G. Raphael (in Psychiatry). *B.A., Hofstra, 1977; Ph.D., 1984*
Ralph Sacco (also Neurology) (in the Sergievsky Center). *B.S., Cornell, 1979; M.D., Boston, 1983*
Charlotte A. Stueve. *B.A., Michigan, 1971; M.A., Chicago, 1974; Ph.D., California, 1985*
Carolyn L. Westhoff (also Obstetrics & Gynecology). *B.S., Michigan 1972; M.D., 1977; M.S., London School of Hygiene & Tropical Medicine, 1983*

Adjunct Assistant Professors

Seth F. Berkley. *B.S., Brown, 1978; M.D., 1981*
Edward A. Bortnichak. *B.A., Pennsylvania, 1973; M.P.H., Yale, 1977; M. Phil., 1978; Ph.D., 1981*
Mary Ann Chiasson. *B.A., Bennington, 1972; M.S., New York University, 1978; M.P.H., Columbia, 1985; Dr.P.H., 1988*
Gretchen Dieck. *B.A., Smith, 1976; M. Phil., Yale, 1979; Ph.D., 1982*
Ann B. Goodman. *B.A., Radcliffe, 1953; M.A., George Washington, 1963; M.S., Columbia, 1972*
Beryl Koblin. *B.A., Delaware, 1978; M.S., Johns Hopkins, 1982; Ph.D., 1987*

Paul S. May. *B.S., College of the City of New York, 1951; M.S., State University of New York (Syracuse), 1952; D.Sc., Philadelphia College of Pharmacy, 1955; M.P.H., Columbia, 1970*
Alfredo Morabia. *M.D., Geneva, 1978; M.A., Johns Hopkins, 1987; Ph.D., 1989*
Janet B. Schoenberg. *B.A., Swarthmore, 1967; M.Phil., Yale, 1970; M.P.H., 1973*
Annette Stemhagen. *B.A., Pennsylvania, 1973; M.P.H., Pittsburg, 1975; Dr.P.H., 1982*
Rand L. Stoneburner. *B.S., Presbyterian (South Carolina), 1971; M.D., Tulane, 1975; M.P.H., Harvard, 1981*
Scott Stryker. *B.A., Rice, 1973; M.D., Baylor, 1977; M.P.H., Harvard, 1982; Dr.P.H., 1987*
Isaac B. Weisfuse. *B.A., Columbia, 1977; M.D., State University of New York (Downstate), 1982*

Assistant Professors of Clinical Public Health

Christina Hoven (in Psychiatry). *B.A., Lindenwood, 1966; M.A., Missouri, 1968; M.P.H., Columbia, 1983; M.S., 1987; Dr.P.H., 1988*
Wendy W. Huebner. *B.S., Wisconsin, 1966; M.P.H., Columbia, 1985; Ph.D., 1990*
Stephen K. C. Ng (in the Sergievsky Center). *B.S., LaSalle, 1967; M.B.,B.S., Hong Kong, 1972; M.P.H., Columbia, 1981; Dr.P.H., 1986*
Godwin U. Obiri. *B.S., West Virginia, 1984; M.S., 1986; Dr.Ph., Alabama (Birmington), 1990*
Sharon B. Schwartz. *B.A., Albert Einstein, 1973; M.A., Columbia, 1974; Ph.D., 1985; M.S., 1988*
Susan A. Wilt. *B.A., Bennington (Vermont), 1964; M.S., Columbia, 1978; M.P.H., 1985*

Assistant Clinical Professors

Linnea Capps (also Medicine). *B.S., Kansas, 1971; M.D., Missouri, 1977; M.P.H., Columbia, 1985*
Bruce S. Gellin. *B.A., North Carolina, 1977; M.D., Cornell, 1983; M.P.H., Columbia, 1991*
Sam R. Toussie. *B.A., Vermont, 1972; M.S., Columbia, 1976; Ph.D., 1984*

Associate Research Scientist

Diane E. Mclean. *B.A., Harvard, 1978; M.P.H., Columbia, 1983; Ph.D., 1991*

SPECIAL LECTURERS

Anna C. Gelman, M.P.H.
Zena A. Stein, M.B.,Ch.B.
Mervyn W. Susser. M.B.,Ch.B.

LECTURERS

Gertrud S. Berkowitz, Ph.D.
Stephen M. Friedman, M.D., M.P.H.
Anne L. Golden, Ph.D.

Geriatrics and Gerontology Program

John E. Borne Professor of Clinical Psychiatry and Program Director

Barry J. Gurland. *M.B.,Ch.B., Capetown, 1955*

Professor of Clinical Public Health

Ruth Bennett (in Psychiatry). *B.A., Brooklyn, 1955; Ph.D., Columbia, 1962*

Assistant Professor of Clinical Public Health

Patricia A. Miller (also Rehabilitation Medicine) (Occupational Therapy). *B.S., New York University, 1962; M.A., Columbia, 1979; M.Ed., 1981*
John A. Toner (in Psychiatry). *B.A., William Paterson, 1975; Ed.D., Columbia, 1976*

Assistant Clinical Professor

Lynn M. Tepper (also Dental & Oral Surgery). *B.S., State University of New York (Buffalo), 1967; M.S., Wayne State, 1971; M.A., Columbia, 1977; Ed.M., 1978; Ed.D., 1980*

Associate Research Scientists

Virginia W. Barrett. *A.A., Colby Sawyer, 1961; B.A., Columbia, 1964; M.Ed., 1980; Dr.P.H., 1987*
Cathy S. Berkman. *B.S., Vermont, 1973; M.S.W., Boston, 1975*

LECTURERS

Robert Karp, M.D.
Eloise H. P. Killeffer. Ed. M.
Julie I. Pellman, Ph.D.
Hila E. Richardson, Dr.P.H.
Venkata S. Satti, M.B.,B.S.
Shura Saul, Ed.D.
Anil K. Verma, M.B.,B.S.

Health Policy and Management

Professor and Division Head

Lawrence Brown. *B.A., Harvard, 1969; Ph.D., 1973*

Professors

Lowell E. Bellin. *B.S., Yale, 1948; M.D., State University of New York (Downstate), 1951; M.P.H., Harvard, 1964*
Jane E. Sisk. *B.A., Brown, 1963; M.A., George Washington, 1965; Ph.D., McGill, 1976*

Adjunct Professors

Howard L. Bailit. *D.M.D., Tufts, 1962; M.S., Harvard, 1964; Ph.D., 1967*
Joseph A. Califano (in Psychiatry). *B.A., Holy Cross (Worcester), 1952; LL.B., Harvard, 1955*
Noreen M. Clark. *B.S., Utah, 1965; M.A., Columbia, 1972; Ph.D., 1976*
Mathilde Krim (in Pediatrics). *B.S., Geneva (Switzerland), 1948; Ph.D., 1953*
Joseph V. Terenzio. *B.A., Yale, 1939; J.D., Fordham, 1947; M.S., Columbia, 1954*

Professor of Clinical Public Health

Charles K. Francis (also Medicine). *A.B., Dartmouth, 1961; M.D., Jefferson, 1965*

Clinical Professors

Samuel Davis. *B.A., City College of New York, 1952; M.S., Columbia, 1957*
Stephen N. Rosenberg. *B.A., Cornell, 1963; M.D., Albert Einstein, 1967; M.P.H., Harvard, 1969*

Associate Professor

Bernard Challenor. *B.A., Hunter, 1957; M.D., State University of New York (Downstate), 1961; M.P.H., Harvard, 1963*

Adjunct Associate Professors

Harold Fructhbaum (History and Philosophy of Public Health). *B.C.E., New York University, 1955; M.S., Rensselaer Polytechnic Institute, 1956; Ph.D. Harvard, 1964*
Lois A. Grau. *B.S.N., Marquette, 1968; M.S., Wisconsin, 1976; Ph.D., 1979*
Lloyd F. Novick. *B.A., Colgate, 1961; M.D., New York University, 1965; M.P.H., Yale, 1971*

Associate Clinical Professors

Oliver T. Fein (also Medicine). *B.A., Swarthmore, 1962; M.D., Case Western Reserve, 1967*
Sheila A. Gorman. *B.S.N., Niagara, 1959; M.P.H., Columbia, 1972; M. Phil., 1981; Ph.D., 1982*

Assistant Professors

David A. Albert (also Dental & Oral Surgery). *B.A., New York University, 1980; D.D.S., 1984; M.P.H., Columbia, 1987*
Sherry A. M. Glied. *B.A., Yale, 1982; M.A., Toronto, 1985; Ph.D., Harvard, 1990*
Stephen E. Marshall (also Dental & Oral Surgery). *B.A., Case Western Reserve, 1982; D.D.S., State University of New York (Buffalo), 1986; M.P.H., Columbia, 1989*
Anne C. Gelijns Pannenborg. *LL.B., Leyden (Netherlands), 1980; LL.M., 1983; Ph.D., Amsterdam (Netherlands), 1991*
Michael S. Sparer. *B.A., Beloit (Wisconsin), 1977; J.D., Rutgers, 1980*

Adjunct Assistant Professors

Theodore Allison. *B.S., Columbia, 1953; M.A., Yale, 1954*
Raymond R. Arons. *B.S., Fairleigh Dickinson, 1962; M.P.H., Columbia, 1976; Dr.P.H., 1983*
Donald L. Ashkenase. *B.S., Brooklyn, 1965; M.B.A., Wagner, 1974*
John Baer. *B.A., Oberlin, 1959; M.S., Columbia, 1961; D.P.A., New York University, 1967*
Tryfon J. Beazoglou. *B.A., Athens, 1963; M.A., Chicago, 1972; Ph.D., Northwestern, 1980*
Willine Carr. *B.A., North Carolina (Greensboro), 1967; M.P.H., North Carolina (Chapel Hill), 1970; M.P.H., Columbia, 1982*
Annette Choolfaian. *B.S., Bridgeport, 1964; M.P.A., New York University, 1972*
Merle C. Cunningham. *B.A., Rochester, 1967; M.D., 1972; M.P.H., Columbia, 1976*
Anita Stiles Curran. *B.A., Connecticut, 1951; M.D., New York Medical College, 1955; M.P.H., Columbia, 1974*
William E. Gold. *B.A., State University of New York (Stony Brook), 1970; M.S.S., Hebrew (Israel), 1972; Ph.D., Minnesota, 1982*
Gail Marie Gordon. *B.S., University of Minnesota, 1968; M.P.H., Johns Hopkins, 1973; Dr.P.H., Columbia, 1979*
Nancy Graham. *M.P.H., Columbia, 1972; Ph.D., 1976*
Elane M. Gutterman. *B.A., State University of New York (Albany), 1972; M.S.W., Yeshiva, 1974; Ph.D., Columbia, 1983*
Sonja Johansen. *B.A., California (Berkeley), 1958; M.A., 1960; M.P.A., Alaska, 1978; M.Phil., Columbia, 1981; Ph.D., 1982*
Henry R. Karpe. *B.A., College of the City of New York, 1952; M.S., Wisconsin, 1972*
John Kastan. *B.S., New York University, 1976; M.A., New School for Social Research, 1979; Ph.D., The City University of New York, 1991*
John M. Kuder. *B.A., Drake, 1971; M.A., Arkansas, 1972; Ph.D., Michigan, 1979*
Jeffrey S. Markowitz. *B.A., Queens (New York), 1972; M.P.H., Columbia, 1980; Dr.P.H., 1988*
Marcia L. Pinkett-Heller. *B.A., Howard, 1963; M.P.H., Michigan, 1970*

Arnold E. Rosenblum. *B.A., Brooklyn, 1947; J.D., New York University, 1950; M.S., Columbia, 1964*
Eleanore Rothenberg. *B.A., Brooklyn, 1955; M.P.A., New York University, 1969; Ph.D., 1975*
Barry R. Snow. *B.A., Yeshiva, 1975; M. Phil., City University of New York, 1980; Ph.D., Columbia, 1981*
James R. Tallon, Jr. *B.A., State University of New York (Syracuse), 1963; M.A., Boston, 1967*
Michael L. Ziegler. *B.A., State University of New York (Albany), 1972; J.D., State University of New York (Buffalo), 1976; M.P.H., Columbia, 1978*

Assistant Professors of Clinical Public Health

Robert E. Fullilove (in Psychiatry). *B.A., Colgate, 1966; M.S., Syracuse, 1972; Ed.D., Columbia, 1984*
Margaret A. Hamburg. *B.A., Harvard, 1978; M.D., 1983*

Assistant Clinical Professors

Joseph Corcoran. *B.S., St. Peter's, 1964; M.B.A., Pace, 1965*
David Lawrence Ginsberg. B. Arch., Cornell, 1955
Margaret L. Haynes. *B.S., Fairleigh Dickinson, 1968; M.P.H., Columbia, 1975; Ed.D., 1984*
Daniel W. Morrissey. *M.A., Pontifical Faculty of St. Thomas Aquinas, 1958; M.A., Aquinas Institute of Theology, 1962; S.T.Lr., 1963*
James J. O'Brien. *B.A., Fordham, 1966; M.A., 1968; Ph.D., 1973*
Michael P. O'Connor. *B.A., St. John's, 1972; M.P.A., City University of New York, 1977; M.Ed., Columbia, 1987; Ed.D., 1991*
Richard S. Thomas. *B. Arch., Pratt Institute, 1968*
Richard P. Zucker. *B.E., Cooper Union, 1970; M.P.H., Columbia, 1981*

SENIOR LECTURERS

Dennis P. Andrulis, M.P.H.
Melanie C. Dreher, Ph.D.

LECTURERS

Frederick D. Alley, M.S.
Barbara Bengen, M.B.A.
Jay M. Bolnick, M.P.H.
Patricia A. Chambers, M.B.A.
Martin Cherkasky, M.D.
Victor G. Demarco, B.S.
Ronald B. Dreskin, M.B.A.
Karin Eckert, M.P.H., M.B.A.
John J. Farmer, C.P.A.
Charmaine M. Fitzig, Dr.P.H.
Nicholas Freudenberg, Dr.P.H.
Gary Gambuti, M.P.H.
Doris Goldberg, M.P.H.
Margaret T. Grossi, M.D.
David Harris, M.D.
Cathy Idema, M.P.H.
Florence Kavaler, M.D.
Stuart M. Lane, Ph.D.
David E. Leach, III, J.D.
Arthur A. Levin, M.D.
Jacob J. Lindenthal, Ph.D.
Regina Loewenstein, M.A.
Daniel R. Longo, Sc.D.
Anthony C. Mustalish, M.D.
Donna O'Hare, M.D.
Ernestine S. Pantel, Dr.P.H.
James M. Pierce, M.P.H.
Peter M. Raith, M.A.
Marjorie A. Rock, Dr.P.H.
Peter Rogatz, M.D.
Alan H. Rosenblut, M.B.A.
Alvin Strelnick, M.D.
John W. Wohltman, Jr., M.A.

INSTRUCTORS

Lin H. Mo, M.P.H., M.B.A.
Joseph B. Stamm, M.P.H.
Ilona W. Surick, M.P.H.

Population and Family Health

Professor and Division Head

James McCarthy. *B.A., Holy Cross, 1971; M.P.H., Indiana, 1976; Ph.D., Princeton, 1977*

Professor

Sami A. Hashim. *B.A., Beirut, 1950; M.S., 1952; M.D., State University of New York (Buffalo), 1955*

Adjunct Professors

Joy G. Dryfoos. *B.A., Antioch, 1951; M.A., Sarah Lawrence, 1966*
Susan G. Philliber. *B.A., Florida State, 1965; M.S., 1966; Ph.D., 1968*

Professors of Clinical Public Health

Nicholas Cunningham (also Pediatrics). *B.A., Harvard, 1950; M.D., Johns Hopkins, 1955; Dr.P.H., 1977*
Stephen L. Isaacs. *B.A., Brown, 1961; J.D., Columbia, 1965*
John A. Ross. *B.A., Ottawa, 1956; M.A., Yale, 1957; Ph.D., 1961*
Giorgio R. Solimano (in the Institute of Human Nutrition). *B.S., Chile, 1952; M.D., 1960*

Clinical Professors

Rosemary Barber-Madden. *B.A., Jersey City State, 1968; M.P.H., Hunter, 1977; Ed.D., Temple, 1980*
Catherine Cowell. *B.S., Hampton Institute, 1945; M.S., Connecticut, 1947*
Martin E. Gorosh. *B.A., Brooklyn, 1959; M.P.H., Johns Hopkins, 1969; Dr.P.H., 1973*

Associate Professor

Andrew R. Davidson. *B.A., Sterling; M.A., Illinois, 1971; Ph.D., 1974*

Adjunct Associate Professor

Tomas Frejka. *M.A., Prague (Czechoslovakia), 1959; Ph.D., Czechoslovak Academy of Sciences, 1966*

Associate Professors of Clinical Public Health

Wendy Chavkin (in Obstetrics & Gynecology). *B.A., Michigan (Ann Arbor), 1973; M.D., State University of New York (Stony Brook), 1978; M.P.H., Columbia, 1980*
Debra Kalmuss. *B.A., State University of New York (Buffalo), 1973; M.S.W., Bryn Mawr, 1976; M.A., Michigan, 1977; Ph.D., 1980*
Sally A. Lederman (in the Institute of Human Nutrition). *B.S., Brooklyn, 1957; M.S., Columbia, 1976; M.Phil, 1979; Ph.D., 1980*
Pearila Namerow. *B.A., Pennsylvania, 1970; M. Phil., Columbia, 1974; Ph.D., 1976*
Virginia A. Rauh. *B.A., Middlebury, 1969; M.S.W. Smith, 1971; Sc.D., Harvard, 1982*

Associate Clinical Professors

Audrey Tittle Cross (in the Institute of Human Nutrition). *B.S., California (Berkeley), 1967; M.P.H., 1969; J.D., California (Hasting), 1978; Ph.D., California (Berkeley), 1985*
Sally E. Findley. *B.A., Reed, 1970; M.A., George Washington, 1977; D. Phil., Brown, 1986*
Judith E. Jones. *B.A., Hunter, 1956; M.S., Columbia, 1983*

William A. Van Wie. *B.A., Wooster, 1961; B.D., Pittsburgh Seminary, 1964; M.P.H., North Carolina, 1968; Dr.P.H., 1974*
Maria J. Wawer. *B.S., New Brunswick (Fredericton), 1974; M.D., McMaster, 1977; M.H.,Sc., Toronto, 1980*

Assistant Professors

Luis B. Agellon (in the Institute of Human Nutrition). *B.Sc., McMaster, 1982; Ph.D., 1986*
William S. Blaner (in the Institute of Human Nutrition). *B.S., Maryland, 1972; M.S., Tennessee, 1975; Ph.D., 1979*
David A. Talmage (in the Institute of Human Nutrition). *B.A., Virginia, 1976; Ph.D., Minnesota, 1981*

Adjunct Assistant Professors

Suelli G. Dallari. *B.A., Sao Paulo (Brazil), 1972; M.P.H., 1978; Dr.P.H., 1984; J.D., 1988*
Amy Pollack. *B.S., Florida, 1978; M.D., 1982; M.P.H., Washington (Seattle), 1991*
Zeil Rosenberg. *B.A., Stanford, 1978; M.D., California (San Francisco), 1982; M.P.H., Columbia, 1985*
Michele G. Shedlin. *B.S., Columbia, 1968; M.A., 1975; M. Phil., Ph.D., 1982*

Assistant Professors of Clinical Public Health

Linda F. Cushman. *Ph.D., New York University, 1986*
Lynn P. Freedman. *B.A., Yale, 1976; J.D., Harvard, 1981; M.P.H., Columbia, 1990*
Donald J. Lauro. *B.A., California (Berkeley), 1966; M.A., 1971; Ph.D., Australian National (Canberra), 1979*
Regina McNamara. *B.A., St. Elizabeth, 1950; M.S.W., Fordham, 1964; M.P.H., Columbia, 1978; Dr.P.H., 1985*
Stanley Musgrave. *B.A., Haverford, 1977; M.D., Rochester, 1981; M.P.H., North Carolina, 1985*
Victoria M. Ward. *B.Phil., Western (Ohio), 1982; M.A., Tulane, 1985; Ph.D., 1989*

Assistant Clinical Professors

Bruce Armstrong. *B.A., Marist, 1971; M.S.W., New York University, 1976*
Bill L. Bower. *B.A., Stanford, 1973; M.P.H., Columbia, 1989*
Ismail T. Diene. *M.D., Dakar (Africa), 1981; M.P.H., Columbia, 1987*
Janet C. Edmondson. *B.A., Manhattanville, 1971; M.A., Columbia, 1976; M.Phil., 1985; Ph.D., 1986*
Angela J. Kamara. *R.N., Forester Hill College of Nursing (Scotland), 1969; C.N.M., Withington Maternity Hospital (England), 1971*
Mark S. Rapoport. *M.D., Boston, 1970; M.P.H., Harvard, 1973*
Linda A. Randolph. *B.S., Howard, 1962; M.D., 1967; M.P.H., California (Berkeley), 1971*
S. Jaime Rozovski. *B.S., Chile, 1969; M.S., Columbia, 1971; Ph.D., 1977*
Lorraine Tiezzi. *B.S., Hunter, 1970; M.S., 1972*

Associate Research Scientists

Mary Larner (National Center for Children in Poverty). *B.A., Swarthmore, 1972; Ed.M., Tufts, 1976; Ph.D., Cornell, 1985*
Deborah P. Maine. *B.A., Barnard, 1972; M.P.H., 1982*
Eugene M. Weiss. *B.A., California (Berkeley), 1963; M.P.H., 1965; Ph.D., Michigan, 1972*

LECTURERS

Elizabeth Bernardik, M.P.H.
Alan B. Bernstein, M.P.H.
Dennis Carlson, M.D.
M. Barbara Cicatelli, M.A.
Rebecca J. Cook, M.P.A., J.D.
Morton Lebow, M.A.
Joyce T. Leung, M.S.
Jill Markowitz, M.P.H.
Jean Pakter, M.D.
Joseph R. Vasselli, Ph.D.

Sociomedical Sciences

Professor and Division Head

Eugene Litwak (also Sociology). *B.A., Wayne State, 1948; Ph.D., Columbia, 1958*

Professors

Ronald Bayer. *B.A., State University of New York (Binghamton), 1964; M.A., Chicago, 1967; Ph.D., 1976*
Denise B. Kandel (in Psychiatry). *B.A., Bryn Mawr, 1952; M.A., Columbia, 1953; Ph.D., 1960*
Seymour Spilerman (Levi Professor of Social Sciences). *B.A., Pomona, 1959; M.A., Brandeis, 1961; Ph.D., John Hopkins, 1968*

Clinical Professors

Geoffrey Gibson. *B.A., Nuttingham, 1959; M.A., Ohio, 1967; Ph.D., 1968*
Joseph Marbach. *B.A., Drew, 1965; D.D.S., Pennsylvania, 1960*

Senior Research Scientist

Ann F. Brunswick. *B.A., Hunter, 1946; M.A., Clark, 1947; Ph.D., Columbia, 1976*

Associate Professor

John L. Colombotos. *B.A., Columbia, 1949; M.A., 1952; Ph.D., Michigan, 1961*

Associate Professors of Clinical Public Health

John P. Allegrante. *B.S., State University of New York (Cortland), 1974; B.S., Illinois, 1976; Ph.D. 1979*
Mindy Fullilove (also Psychiatry). *B.A., Bryn Mawr, 1971; M.S., Columbia, 1974; M.D., 1978*

Associate Clinical Professor

Peter A. Messeri. *B.S., Massachusetts Institute of Technology, 1972; M.A., Columbia, 1976; Ph.D., 1985*

Associate Clinical Professor of Social Sciences

Carol Caton (in Psychiatry). *B.S., Columbia, 1962; M.S.N., Yale, 1965; Ph.D., Michigan, 1961*

Research Scientist

Mata K. Nikias. *D.D.S., Athens, 1953; M.P.H., Columbia, 1960; Ph.D., 1976*

Assistant Professors

David Evans (in Pediatrics). *B.A., Harvard, 1964; M.A., Northwestern, 1969; Ph.D., 1975*
Cheryl G. Healton. *B.A., New England, 1975; M.P.A., New York University, 1978; Dr.P.H., Columbia, 1991*
Mary Clare Lennon. *B.A., Fordham, 1970; M.A., Columbia, 1975; Ph.D., 1980; M.S., 1985*

Adjunct Assistant Professors

Judith Barr. *B.A., Goucher, 1957; Sc.D., Johns Hopkins, 1976*

Margery Braren. *M.A., Columbia, 1963; Ph.D., 1971*
Lawrence Krasnoff. *B.A., College of the City of New York, 1969; Ph.D., 1979*
Betty W. Levin. *B.A., Barnard, 1969; M.A., Columbia, 1977; M.Phil., 1980; Ph.D., 1985*
Debra Murphy. *B.S., New Mexico, 1975; M.S., Texas Christian, 1981; Ph.D., 1983*

Assistant Professors of Clinical Public Health

Robert E. Fullilove (in Psychiatry). *B.A., Colgate, 1966; M.S., State University of New York (Syracuse), 1972; Ed.D., Columbia, 1984*
Donald H. Gemson. *B.A., Hamilton (New York), 1974; M.D., New York Medical College, 1978; M.P.H. Columbia, 1985*
Carol Lewis. *B.A., Radcliffe, 1955; M.A.T., Johns Hopkins, 1962; M.S.W., Maryland, 1966; M.P.H., Johns Hopkins 1976; Sc.D., 1983*

Assistant Clinical Professors

James A. Lipton. *B.S., College of the City of New York, 1967; D.D.S., Columbia, 1971; Ph.D., 1980*
Elie S. Valencia (in Psychiatry). *B.A., Columbia, 1980; M.A., State University of New York (Binghamton), 1982; J.D., Rutgers, 1989*

Associate Research Scientists

Angela A. Aidala. *B.A., Miami, 1967; Ph.D., Columbia, 1980*
Laura Lee Dean. *Ed.M., Columbia, 1980; M.A., 1978; B.A., City College of New York, 1974*
Stanley Fisher. *B.S., College of the City of New York, 1949; M.S.W., Columbia, 1955; Ph.D., City University of New York, 1977*
Myriam Sudit. *B.A., Hunter, 1972; M.S., 1974; Ph.D., Columbia, 1987*
Carole S. Vance (Anthropology). *B.A., Hunter, 1968; Ph.D., Columbia, 1970*
Carmen N. Velez Santori. *B.A., Puerto Rico, 1970; M.A., 1973; M. Phil., Columbia, 1978; Ph.D., 1981*

Adjunct Associate Research Scientist

Dorothy Jones-Jessop. *B.A., New Rochelle, 1963; M.A., New York University, 1972; Ph.D., 1979*

Senior Research Associate

Paul W. Haberman. *B.S., Pennsylvania, 1948; M.B.A., New York University, 1961*

Research Associate

Athilia Siegmann. *B.S., Queens (New York), 1944; M.A., Columbia, 1947*

SPECIAL LECTURER

Jack Elinson, Ph.D.

LECTURERS

Raymond Fink, Ph.D.
Kim Hopper, Ph.D.
Corinne Kirchner, M.Phil.
Victoria H. Raveis, Ph.D.
Lucille Rosenbluth, M.P.A.

INSTRUCTORS

Charlotte Ellis, Ph.D.
Rochelle Kern, Ph.D.,M.P.H.

Tropical Medicine Program

Professor

Dickson D. Despommier (Parasitology) (also Microbiology). *B.S., Fairleigh Dickinson, 1962; M.S., Columbia, 1964; Ph.D., Notre Dame, 1967*

Assistant Professor

Mary Gwo-Shu Lee (also Pathology). *B.S., National University of Taiwan, 1978; M.S., 1981; Ph.D., New York University, 1985*

Assistant Clinical Professor

Martin G. Blechman. *B.S., George Washington, 1949; M.S., Columbia, 1953; M.D., Jefferson, 1957*

Radiation Oncology

Professor and Chairman

Peter B. Schiff. *B.A., Brandeis, 1975; M.S., Albert Einstein, 1978; Ph.D., 1980; M.D., 1984*

At Presbyterian Hospital

Professor of Radiation Biophysics

Eric J. Hall (also Eugene Higgins Professor of Radiology) (Physics). *D.Phil., Oxford, 1962; D.Sc., 1978*

Professor of Radiation Biology

Basil V. Worgul (in Ophthalmology). *B.S., Miami, 1969; Ph.D., Vermont, 1974*

Professors of Clinical Radiation Oncology

Howard Ira Amols. *B.S., Cooper Union, 1970; M.S., Brown, 1973; Ph.D., 1974*
Charles R. Geard. *B.A.S., Melbourne, 1960; M.S., Tasmania, 1969; Ph.D., Australian National, 1973*

Associate Professors

David Jonathan Brenner. *B.A., Oxford, 1974; M.S., London, 1976; Ph.D., Surrey, 1979*
Marco Zaider (also Public Health) (Environmental Health Science). *M.S., Bucharest (Romania), 1968; Ph.D., Tel Aviv, 1976*

Associate Clinical Professor

Karen S. Fountain. *B.A., Northern State (South Dakota), 1968; M.D., Maryland, 1972*

Assistant Professors

Greg A. Freyer. *B.S., Cincinnati, 1976; Ph.D., Missouri, 1981*
Mary K. Hayes. *B.A., Manhattanville, 1975; M.S., Boston, 1980; M.D., Ross, 1984*
Tom K. Hei. *B.S., Wisconsin, 1958; Ph.D., New York University, 1974*
Steven R. Isaacson (also Otolaryngology). *B.S., Pennsylvania State, 1969; M.D., Jefferson, 1973*

Paul J. Kliauga (Radiation Biophysics). *B.S., Chicago, 1958; Ph.D., New York University, 1974*
Howard B. Lieberman. *B.S., Brooklyn, 1977; Ph.D., Rutgers, 1982*

Adjunct Assistant Professors

Paul E. Goldhagen. *B.S., Maryland, 1967; Ph.D., Princeton, 1973*
Anthony M. Mount. *M.S., Oxford, 1972*

Assistant Professors of Clinical Radiation Oncology

Michael J. Bardash. *B.S., State University of New York (Albany), 1981; Ph.D., Cornell, 1989*
Richard Calvin Miller. *B.A., Iowa, 1969; M.S., 1972; Ph.D., 1976*
Jaime S. Rubin. *Ph.D., Toronto, 1984*
Cheng Shie Wuu. *B.S., National Tsing Hua University (Taiwan), 1979; M.S., 1982; Ph.D., Kansas, 1985*

Associate Research Scientists

Chun-Zhang Chen. *B.S., China (Hefei), 1976; M.S., St. Andrews (United Kingdom), 1984; Ph.D., 1987*
Bradford Loucas. *B.S., Monmouth (New Jersey), 1979; M.S., North Carolina, 1983; Ph.D., Colorado, 1990*
Gerhard Randers-Pehrson. *B.S., Rensselaer Polytechnic Institute, 1966; M.D., Maryland, 1979*

SPECIAL LECTURER

Chu Huai Chang, M.D.

At Mary Imogene Bassett Hospital

Assistant Clinical Professor

Harold J. Barthold II. *B.S., Massachusetts, 1978; M.D., Hahnemann, 1982*

Radiology

James Picker Professor and Chairman

Philip O. Alderson. *B.A., Washington (St. Louis), 1966; M.D., 1970*

At Presbyterian Hospital

Professors

Walter E. Berdon. *B.A., Syracuse, 1950; M.D., 1955*
Frieda Feldman. *B.A., New York University, 1953; M.D., 1957*
Eric J. Hall (Physics) (also Eugene Higgins Professor of Radiation Biophysics). *Ph.D., Johns Hopkins, 1942*
Sadek Hilal. *M.D., Cairo, 1955*
Jeffrey H. Newhouse. *B.A., Princeton, 1963; M.D., Harvard, 1967*

Professor of Medical Informatics

Paul D. Clayton (in Medicine). *B.A., Utah, 1966; M.S., Arizona, 1969; Ph.D., 1973*

Adjunct Professors

Zang-Hee Cho (Radiation Physics). *B.S., Seoul National, 1960; M.S., 1962; Ph.D., Uppsala, 1966*
Lawrence A. Shepp. *B.S., Polytechnic Institute of Brooklyn, 1958; M.A., Princeton, 1960; Ph.D., 1961*
Charles S. Springer. *B.S., St. Louis, 1962; M.S., Ohio, 1964; Ph.D., 1967*

Professors of Clinical Radiology

John H. Austin. *B.A., Harvard, 1961; M.D., Yale, 1965*
Yahya M. Berkman. *M.D, Istanbul, 1952*
Peter D. Esser (Physics). *B.A., Brown, 1961; M.S., Adelphi, 1964; Ph.D., 1971*
Jack Farman. *M.B.,Ch.B., University of Cape Town (South Africa), 1948; M.D., 1963*
Rashid Fawwaz. *M.D., American University of Beirut, 1960; Ph.D., California (Berkeley), 1968*
Donald L. King. *B.A., Stanford, 1956; M.D., Columbia, 1960*
Eric C. Martin. *B.A., Oxford, 1963; M.A., 1967; M.D., St. Thomas (London), 1967*
Edward L. Nickoloff (Radiation Physics). *B.S., Carnegie Institute of Technology, 1965; M.S., New Hampshire, 1968; Sc.D., Johns Hopkins, 1977*
Alan J. Silver. *B.A., Harvard, 1967; M.D., Rochester, 1973*
Ronald L. Van Heertum. *B.A., Gettysburg, 1962; M.D., College of Medicine and Dentistry of New Jersey, 1966*

Associate Professor

John Pile-Spellman (also Neurological Surgery). B.*M.S., South Dakota, 1976; M.D., Tufts, 1978*

Associate Professors of Clinical Radiology

Sara Abramson. *B.A., Sarah Lawrence, 1967; M.D., Mt. Sinai, 1971*
Lawrence M. Boxt. *B.A., California (Berkeley), 1970; M.D., New York Medical College, 1974*
Monique C. Katz. *B.A., Vassar, 1959; M.D., Albert Einstein, 1963*
Karen Laffey. *B.A., Bryn Mawr, 1968; M.Phil., Yale, 1971; Ph.D., 1974; M.D., 1977*
Theodore Sheng-Tao Wang. *B.S., National Mukden Medical College (China), 1952; M.S., Nebraska, 1958; Ph.D., Maryland, 1964*

Associate Professor of Clinical Neuropsychology

Isak Prohovnik (in Psychiatry and Neurology). *M.S., Lund (Sweden), 1980; Ph.D., 1981*

Associate Clinical Professors

Harry Agress, Jr. *B.A., Tufts, 1968; M.D., 1972*
Kaaren Nyhus Bergquist. *B.S., Wisconsin, 1962; M.D., Case Western Reserve, 1968*
Jacqueline C. Brunetti. *B.A., Manhattanville, 1971; M.D, State University of New York (Downstate), 1975*
Sundara R. Ganti. *M.B.,B.S., Guntur Medical College (India), 1967*
Herman W. Lubetsky. *B.S., College of the City of New York, 1948; M.D., Geneva, 1953*

Assistant Professors

Ronda Bixon. *B.S., Tufts, 1976; M.D., 1981*
Stephen Chan. *B.A., Harvard, 1979; M.D., Columbia, 1984*
Judith A. Fayter. *B.S., Pace, 1978; M.D., Columbia, 1985*
Robin L. Greenspan. *B.A., Franklin & Marshall, 1977; M.D., Pennsylvania, 1981*
Leah P. Gruss. *B.A., Hunter, 1980; M.D., Albert Einstein, 1986*
Glyn Johnson. *B.A., Cambridge, 1977; M.S., Aberdeen, 1978; Ph.D., 1984*

Jose Katz (also Medicine). *B.S., Illinois, 1963; M.S., 1964; Ph.D., 1967; M.D., Berlin, 1980*
Eliza Pile-Spellman. *B.S., South Dakota, 1976; M.D., Tufts, 1978*
Kathleen Reagan. *B.A., Indiana (Bloomington), 1974; M.D., Indiana (Indianapolis), 1980*
Tae Hyon Rho. *B.A., Duke, 1980; M.D., North Carolina, 1984*
Joseph K. Rogers. *B.S., Manhattan, 1977; M.D., New York Medical College, 1981*
Benjamin M. Romney. *M.D., Columbia, 1977*
Carrie B. Ruzal-Shapiro. *B.A., Princeton, 1978; M.D., Columbia, 1982*
Steven N. Sireci, Jr. *B.A., Pennsylvania, 1980; M.D., College of Medicine and Dentistry of New Jersey, 1984*
Ronald B. Staron. *B.S., Villanova, 1977; M.D., College of Medicine and Dentistry of New Jersey, 1982*
Donald M. Stavis. *B.A., Queens (New York), 1968; M.D., Albert Einstein, 1972*
Alicia Zwass. *M.D., Wroclawo (Poland), 1968*

Assistant Professors of Clinical Radiology

Mohammed Abdul-Quader. *M.B.,B.S., Osmania (India), 1968*
Agnes M. Boxhill. *B.S., City College of New York, 1974; M.D., Columbia, 1979*
Edward I. Holodny. *B.A., New York University, 1964; M.E., 1968; Sc.D., New York University and Indiana Northern, 1974;*
In Ki Mun. *B.A., Pomona, 1975; M.S., Cornell, 1978; Ph.D., 1980*
Ellen F. Silverstein. *B.A., Brandeis, 1962; M.A., Columbia, 1963; M.D., State University of New York (Downstate), 1969*

Assistant Clinical Professors

Gregory Marc Carsen. *B.A., Oberlin, 1965; M.D., State University of New York (Downstate), 1969*
Harvey L. Hecht. *B.A., Amherst, 1958; M.D., Albert Einstein, 1962*
David J. Mullen. *B.A., Rutgers, 1979; M.D., Albert Einstein, 1983*

SPECIAL LECTURERS

Thane Asch, M.D.
David H. Baker, M.D.
Kent Ellis, M.D.
William B. Seaman, M.D.
Ralph Schlaeger, M.D.

ASSOCIATES IN CLINICAL RADIOLOGY

Ajoy K. Dutta, M.S.
Charles L. Smith, M.S.

INSTRUCTORS IN CLINICAL RADIOLOGY

James A. Mcfaul, Ph.D.
Frieda Trichter, D.Sc.

At Mary Imogene Bassett Hospital

Adjunct Assistant Professor

Stephen W. Nagy. *Ph.D., Connecticut, 1959*

Assistant Clinical Professors

Lawrence Barnowsky. *B.A., Hofstra, 1972; M.S., Rutgers, 1974; M.D., State University of New York (Albany), 1978*
Vittal B. Chanamolu. *M.D., Kakatiya Medical College (India), 1972*

Rajendrakumar Dalal. *M.B.,B S., D.V.M. Medical School, (India), 1969*
Harry R. Hartmann. *M.D., Yale, 1959*
David L. Sommerville. *B.A., Washington & Jefferson, 1964; M.D, Pennsylvania, 1968*
Peter T. Wright. *B.A., Albion (Michigan), 1971; M.D., Michigan, 1975*

INSTRUCTOR IN CLINICAL RADIOLOGY

Thomas E. Miller, M.D.

At Harlem Hospital Center

Assistant Professors

Nasser H. S. Hassini. *M.D., Tehran (Iran), 1964*
Roberta C. Locko. *B.A., Manhattanville, 1972; M.D., George Washington, 1976*
Virgiliu G. Necula. *M.D., Faculty of Medicine (Romania), 1949*

Assistant Professor of Clinical Radiology

Laurencia B. Regalado. *M.D., Santo Tomas (Philippines), 1957*

Assistant Clinical Professors

Norma H. Aquino. *M.D., Santo Tomas (Philippines), 1964*
Christopher A. Johnson. *B.A., Howard, 1943; M.D., 1947*
Candido P. Quinones. *M.D., Santo Domingo, 1966*
Allan J. Schwartz. *B.A., City College of New York, 1967; M.S., Harvard, 1968; M.D., Columbia, 1974*
Leroy A. Sugarman. *B.A., Johns Hopkins, 1942; M.D., Long Island, 1945*
Abdulhamid R. Vazir. *M.D., Bombay, 1942*

INSTRUCTORS IN CLINICAL RADIOLOGY

Nabil Arslan, M.D.
Serge Balmir, M.D.
Gilles M. Hendrick, M.D.
Gary Roxland, M.D.

At Morristown Memorial Hospital

Assistant Clinical Professors

Roger A. Berg. *B.S., Michigan, 1957; M.D., 1961*
Roy J. Cobb. *B.A., Wesleyan, 1979; M.D., Cornell, 1983*
William C. Colston. *B.S., Davidson (North Carolina), 1958; M.D., Duke, 1962*
Hal J. Ginsberg. *B.A., State University College, 1973; M.D., Universidad Centro de Estudios Tecnicos (Dominican Republic), 1983*
Simon C. P. Lam. *B.S., St. Joseph, 1972; M.S., Ph.D., Pennsylvania, 1978*
Allan W. Newcomb. *B.A., Princeton, 1956; M.D., Yale, 1960*
Fred M. Palace. *B.A., Johns Hopkins, 1952; M.A., 1956; M.D., Yale, 1960*
James B. Rubenstein. *B.S., Cornell, 1974; M.D., New York Medical College, 1978*
Jeanne R. Schwartz. *B.A., Skidmore, 1963; M.S., New York University, 1965; M.D., State University of New York (Downstate), 1979*
Lawrence C. Swayne. *B.S., Ursinus (Pennsylvania), 1975; M.D., Rutgers, 1979*
A. Frank Weitzman. *B.A., Cornell, 1967; M.D., Johns Hopkins, 1971*

At Overlook Hospital

Assistant Clinical Professors

Heil B. Horner. *B.A., Princeton, 1979; M.D., Rutgers, 1983*
James Korsten. *B.A., Cornell, 1959; M.D., State University of New York (Downstate), 1963*

At St. Luke's-Roosevelt Hospital

Professor

Ronald C. Ablow. *B.A., Harvard, 1954; M.D., Rochester, 1962*

Professor of Clinical Radiology

Guy D. Potter. *B.S., Chicago, 1957; M.D., 1960*

Clinical Professor

Kuo-York Chynn. *B.S., National Tung-Chi University (Shanghai), 1945; M.D., 1949; M.S., St. Louis, 1954*

Associate Professor

Ernest G. Depuey. *B.A., Duke, 1969; M.D., Baylor, 1976*

Associate Professors of Clinical Radiology

Sol Jay Dan. *B.A., Yeshiva, 1970; M.D., Cornell, 1974*
David H. Frager. *B.A., Yeshiva, 1973; M.D., Pennsylvania, 1977*
Richard Palmer Gold. *B.A., Tufts, 1965; M.D., 1969*
Chester J. Kay. *B.A., Michigan, 1956; M.D., State University of New York (Downstate), 1960*

Associate Clinical Professors

Michael Abiri. *M.D., Tehran, 1972*
Jeanne W. Baer. *B.S., Connecticut, 1960; M.D., Columbia, 1964*
Rolando Dario Singson. *B.S., Santo Tomas (Philippines), 1965; M.D., 1970*
Bernard Suster. *B.S., State University of New York (Brooklyn), 1964; M.D., State University of New York (Downstate), 1968*

Assistant Professors

George I. Getrajdman. *B.A., Rutgers, 1976; M.D., Johns Hopkins, 1980*
Nolan J. Kagetsu. *B.S., Massachusetts Institute of Technology, 1980; M.D., State University of New York (Albany), 1984*
Alexander G. Khandji. *B.S., St. Francis, 1975; M.D., State University of New York (Downstate), 1980*
Madhuri Kirpekar. *B.A., New York University, 1974; M.D., State University of New York (Downstate), 1978*
Sherman S. Lipschitz. *B.A., Columbia, 1976; M.D., 1980*
Steven R. Parmett. *A.B., A.M., Harvard, 1974; M.D., 1979*
Suzanne J. Smith. *B.A., Carleton, 1966; M.D., Medical College of Pennsylvania, 1971*

Assistant Professors of Clinical Radiology

Benjamin Bashist. *B.S., Brooklyn, 1972; M.D., Albert Einstein, 1975*
Andrew J. DeRogatis. *M.D., Rutgers, 1975*

Cheryl H. Grandone. *B.S., Brooklyn, 1973; M.S., 1975; M.D., Mt. Sinai, 1981*
Carol L. Hilfer. *B.A., Barnard, 1967; M.D., Albert Einstein, 1971*
Carl E. Johnson. *A.B., Chicago, 1977; M.D., Loyola, 1981*
Marie E. Porzio. *B.S., State University of New York (Stony Brook), 1983; M.D., New York Medcial College, 1987*
Marjorie S. Rosenblatt. *B.A., Cornell, 1982; M.D., State University of New York (Stony Brook), 1986*
Richard Michael Schaffer. *M.D., State University of New York (Downstate), 1976*
Alvaro Vallejo. *M.D., Del Valle (Colombia), 1967*
David A. Wojtasek. *B.A., Johns Hopkins, 1979; M.D., 1982*

Assistant Clinical Professors

Brian Donnelly. *B.S., St. Peters, 1967; M.D., Jefferson, 1971*
David S. Marsden. *Ph.D., Jefferson, 1968*
Theodora Serban. *B.S., Lyceum Regina Maria (Bucharest), 1947; M.D., Medical School (Bucharest), 1953*

SPECIAL LECTURERS

Virginia Kanick, M.D.
Leonard M. Liegner, M.D.

Rehabilitation Medicine

H. K. Corning Professor and Chairman

James S. Lieberman. *B.S., California (San Francisco), 1960; M.D., 1963*

At Presbyterian Hospital

Professors

John A. Downey (Simon Baruch Professor). *M.D., Manitoba, 1954; D.Phil., Christ Church (Oxford), 1962*
Stanley J. Myers (A. David Gurewitsch Professor). *B.A., New York University, 1957; M.D., State University of New York (Downstate), 1961*

Clinical Professor

Sanders W. Davis. *M.D., Texas, 1965*

Associate Professor

Lucien J. Cote (also Neurology). *B.A., Vermont, 1951; M.D., 1954*

Associate Clinical Professors

Arun Bhattacharyya. *B.S., Bangabasi (Calcutta), 1950; M.D., Nilratan Sirca Medical College (Calcutta), 1955*
Antonio Cocchiarella. *M.D., Bari (Italy), 1953*
Francis J. Foca. *B.S., Fordham, 1957; M.D., Bologna (Italy), 1966*
Jonathan Moldover. *B.A., Trinity (Connecticut), 1970; M.D., Columbia, 1974*
Anthony J. Pisciotta. *B.A., Hofstra, 1971; M.D., Rome, 1980*

Assistant Professor

Brenda S. Mallory (Herbert & Florence Irving Assistant Professor). *B.S., Manitoba, 1976; M.D., 1980*

Adjunct Assistant Professor of Pharmacology

Daniel E. Lemons. *B.A., Goshen, 1974; M.S., Portland, 1978; M.Phil., Columbia, 1982; Ph.D., 1986*

Assistant Professors of Clinical Rehabilitation Medicine

Jose A. Alonso. *B.A., Columbia, 1979; M.D., 1983*
Thomas J. Cava. *B.A., Columbia, 1981; M.D., Miami, 1987*
Nelson Colon. *B.S., Puerto Rico, 1982; M.D., 1986*
Daniel C. Fechtner. *B.S., Northwestern, 1982; M.D., 1984*
Mary Guarracini. *B.S., Mount St. Vincent, 1978; M.D., St. Louis, 1982*
S. David Miller. *B.S., Tufts, 1980; M.D., State University of New York (Buffalo), 1986*
Zachary M. Pine. *B.A., Amherst, 1982; M.D., Columbia, 1986*
Gale Pugliese. *B.A., Johns Hopkins, 1979; M.D., New York Medical College, 1983*

Assistant Clinical Professors

Donald Liss. *B.A., Columbia, 1975; M.D., Wayne, 1979*
Howard Liss. *B.A., New York University, 1973; M.D., Wayne, 1977*
Kathleen R. Watson. *M.B.,B.S., West Indies, 1971*

Associate Research Scientists

Martha E. Heath (also Pharmacology). *B.S., California (Hayward), 1973; M.A., 1975; Ph.D., Cambridge (Great Britain), 1979*
Fredi Kronenberg. *B.S., Cornell, 1972; Ph.D., Stanford, 1979*

SPECIAL LECTURER

Robert C. Darling, M.D.

ASSOCIATES IN CLINICAL REHABILITATION MEDICINE

Robert P. Narcessian, B.S.
Robert Stone, M.S.

INSTRUCTORS IN CLINICAL REHABILITATION MEDICINE

William M. Demayo, M.D.
Glenn F. Hutnick, B.S.
Paul Jendrek, M.D.
Jerrold Kaplan, M.D.
Peter D. Natale, D.P.M.
Patricia A. Richards, M.D.
David S. Rosenblum, M.D.
Alyse B. Sicklick, M.D.
Anne M. Skvarla, M.A.

At Harlem Hospital Center

Professor of Clinical Rehabilitation Medicine

Herbert L. Thornhill. *B.S., Pittsburgh, 1951; M.D., Howard, 1955*

Clinical Professor

Yasoma B. Challenor. *B.A., Hunter, 1959; M.D., State University of New York (Downstate), 1963*

Associate Clinical Professor

Wanda Brodzka. *M.D., Academy of Medicine (Warsaw), 1954*

Assistant Professors of Clinical Rehabilitation Medicine

Thomas Abraham. *B.S., St. Philomena's, 1953; M.D., Kasturba Medical College, 1961*
Iluminado C. Nebab. *M.D., Santo Tomas (Philippines), 1959*

Assistant Clinical Professor

Serge Fenelon (also Pediatrics). *M.D., Lausanne, 1973*

Assistant Clinical Professor of Neuropsychology

Richard S. Babb. *M.A., California (Los Angeles), 1972; Ph.D., Queens (New York), 1975*

SPECIAL LECTURER

Ivan T. Donev, M.D.

INSTRUCTORS IN CLINICAL REHABILITATION MEDICINE

Armand Demosthenes, M.D.
Roger G. Perard, M.D.

INSTRUCTOR IN CLINICAL OCCUPATIONAL THERAPY

Sandhya E. Zarapkar, M.A.

INSTRUCTOR IN CLINICAL PHYSICAL THERAPY

Joseph A. Malloy, M.D.

At Helen Hayes Hospital

Associate Professor of Clinical Rehabilitation Medicine

Martin W. Ferguson-Pell. *B.S., Exeter (United Kingdom), 1973; Ph.D., Strathclyde (Glasgow), 1977*

At Morristown Memorial Hospital

Assistant Clinical Professor

Gregory J. Mulford. *B.A., Lafayette, 1981; M.D., Rutgers, 1985*

At St. Luke's-Roosevelt Hospital Center

Associate Clinical Professors

Patrick J. Fazzari. *B.S., Manhattan, 1963; M.D., State University of New York (Albany), 1967*
Stanley Wainapel. *B.A., M.D., Boston, 1970*

Assistant Clinical Professor

Young Sei Kwon. *M.D., Catholic (Korea), 1960*

INSTRUCTOR IN CLINICAL REHABILITATION MEDICINE
Susana G. Duncan, M.D.

INSTRUCTOR IN CLINICAL OCCUPATIONAL THERAPY
Cheryl King, M.S.

Occupational Therapy

Associate Professor and Director of Program

Barbara E. Neuhaus. *B.A., Keuka, 1950; O.T.R., Columbia, 1952; M.A., 1960; Ed.D., 1980*

Associate Clinical Professor

Gordon G. Williamson. *B.A., Emory, 1968; M.S., Columbia, 1970; Ph.D., 1978*

Adjunct Assistant Professor

Anne Mazur-Robinson. *B.S., Columbia, 1978; M.A., 1983*

Assistant Professors of Clinical Occupational Therapy

Jane P. Bear-Lehman. *B.S., Wisconsin, 1973; M.S., Illinois, 1981*
Margaret Ann Brown. *B.S., Western Michigan, 1960; M.A., Columbia, 1976*
Janet Falk-Kessler. *B.S., Pennsylvania, 1974; M.A., Columbia, 1978*
Patricia A. Miller (also Public Health) (Geriatrics & Gerontology). *B.S., New York University, 1962; M.A., Columbia, 1979; M.Ed., 1981*
Chaye L. Warburg. *B.A., Columbia, 1976; M.A., 1980*

ASSOCIATE IN CLINICAL OCCUPATIONAL THERAPY
Pamela H. Miller, M.A.

INSTRUCTORS IN CLINICAL OCCUPATIONAL THERAPY
Danielle Butin, B.S.
Ruth Dickey, M.A.
Elaine D. Fondiller, M.S.
Carol Fraley, M.S.
Susan J. Gelb, B.S.
Michele C. Helfgot, M.A.
Elaine M. McCreanor, M.S.
Elise A. Salantrie, M.A.
Jo Ann Vizzari, M.S.
Lisa L. Zoldan, B.S.

Physical Therapy

Associate Professor of Clinical Physical Therapy and Acting Director

Joan E. Edelstein. *B.S., New York University, 1956; M.A., 1958*

Assistant Professors

James E. Gordon. *B.A., State University of New York (Downstate), 1974; M.A., Columbia, 1981; Ed.M., 1983; Ed.D., 1985*
Ellen C. Ross. *B.A., Connecticut, 1978; B.S., New York University, 1982; M.A., 1985*

Assistant Professors of Clinical Physical Therapy

Cynthia M. Chiarello. *B.S., State University of New York (Fredonia), 1977; M.S., Duke, 1979; Ph.D., New York University, 1987*
Mary Joan Day. *B.S., St. Louis, 1961; M.S., Pennsylvania, 1972*
Christine W. Wade. *B.S., Ohio State, 1979; M.A., 1984; M.S., 1986*

SPECIAL LECTURER

Mary E. Callahan, M.A.

ASSOCIATES IN CLINICAL PHYSICAL THERAPY

Theodore Corbitt, M.A.
Carl Gargiulo, M.A.
Rita Hamburgh, M.A.
Theresa M. Morrone, B.A.
Howard J. Phillips, Jr., M.S.

INSTRUCTORS IN CLINICAL PHYSICAL THERAPY

Maria Alarico, B.S.
Lori Buck, B.S.
Theresa Carway, B.S.
Michael A. Gallucci, M.S.
Linda Gundersen, M.S.
Michael J. Katz, B.S.
Susan C. Kiley, M.S.
Gerald F. Lewis, M.S.
Susan A. McDonald, B.S.
Joyce Nahigian, M.S.
Terrence O'Halloran, M.S.
Debbie A. Organ, M.S.
Edward M. Pisarski, M.S.
Marylee Purrington, M.S.
Tricia Rajczak, M.S.
Georgia N. Reidel, B.S.
Ruth A. Teitel, M.S.
Jannell W. Vetter, B.S.

Surgery

Valentine Mott Professor; Johnson and Johnson Professor and Chairman

Keith Reemtsma. *B.S., Idaho State, 1945; M.D., Pennsylvania, 1949*

At Presbyterian Hospital

Professors

R. Peter Altman (Rudolph N. Schullinger Professor of Pediatric Surgery) (in Pediatrics). *B.A., Colgate, 1955; M.S., Rochester, 1958; M.D., New York Medical College, 1961*
Mark A. Hardy (Hugh Auchincloss Professor of Surgery). *B.A., Columbia, 1958; M.D., Albert Einstein, 1962*
Norman E. Hugo (Plastic). *B.A., Williams, 1955; M.D., Cornell, 1959*
Thomas C. King. (Jose M. Ferrer Professor) *B.A., Utah, 1950; M.A., Missouri, 1954; M.D., 1963*
Paul Lo Gerfo. *B.S., Rensselaer Polytechnic Institute, 1961; M.S., 1963; M.D., State University of New York (Upstate), 1967*

Roman Nowygrod. *B.A., Harvard, 1966; M.D., Columbia, 1970*
John B. Price, Jr. *M.A., Texas, 1948; M.D., Johns Hopkins, 1950*
Eric A. Rose. *B.A., Columbia, 1971; M.D., 1975*
Henry M. Spotnitz (George H. Humphreys II Professor). *B.A., Harvard, 1962; M.D, Columbia, 1966*

Professors of Clinical Surgery

David Tak Wai Chiu. *B.A., Missouri, 1969; M.D., Columbia, 1973*
Kenneth A. Forde. *B.S., City College of New York, 1954; M.D., Columbia, 1959*
George E. Green. *B.S., Yale, 1952; M.D., 1956*
Alfred M. Markowitz. *B.A., New York University, 1948; M.D., Washington (St. Louis), 1952*
John N. Schullinger. *B.A., Princeton, 1951; M.D., Columbia, 1955*

Professor of Clinical Pathology

Nicole Suciu-Foca. *B.S., Bucharest, 1959; M.S., 1960; Ph.D., 1965*

Clinical Professors

Donald Wood-Smith. *L.C., Newingron (Sydney, Australia), 1947; M.B., B.S., Sydney (Australia), 1954*
Bashir Ahmad Zikria. *B.S., George Washington, 1954; M.D., Johns Hopkins, 1958*

Associate Professors

Jan M. Quaegebeur. *B.S., Facultes Universitaire, 1965; M.D, Catholic University, 1969*
Charles J. H. Stolar. *B.A., Washington (St. Louis), 1970; M.D., Georgetown, 1974*

Adjunct Associate Professor of Pathology

Ah-Kau Ng. *B.A., National Chung Hsing University (Taiwan), 1969; M.D., State University of New York (Plattsburgh), 1972; Ph.D., Temple, 1975*

Associate Professor of Clinical Dental & Oral Surgery

Steven M. Roser (in Otolaryngology). *B.A., Middlebury, 1964; D.M.D., Harvard, 1968; M.D., 1972*

Associate Professors of Clinical Surgery

Alan I. Benvenisty. *B.S., Union, 1974; M.D., Columbia, 1978*
Joseph A. Buda. *B.A., Columbia, 1951; M.D., Cornell, 1955*
Alison Estabrook. *B.A., Barnard, 1974; M.D., New York University, 1978*
Alfred Jaretzki, III. *B.A., Harvard, 1941; M.D., 1944*
Craig Richey Smith. *B.A., Williams, 1970; M.D., Case Western Reserve, 1977*
Daniel H. Smith (also Obstetrics & Gynecology) (Oncology). *M.D., Harvard, 1972*
George J. Todd. *B.S., Iona, 1970; M.D., Pennsylvania State, 1974*
Michael Treat. *B.A., Pennsylvania, 1971; M.D., Jefferson, 1976*
Collin J. Weber. *B.A., Princeton, 1967, M.D., Columbia, 1971*

Associate Clinical Professors

Sven Kister. *B.A., Dartmouth, 1955; M.D., Harvard, 1958*
Peter S. Liebert. *M.D., Harvard, 1962*
Kenneth M. Steinglass. *B.A., Yale, 1968; M.D., Harvard, 1972*

Assistant Professors

M. Kamel Abouzahr. *B.A., American University of Beirut, 1974; M.D., 1978*
Spencer E. Amory. *B.S., Long Island, 1979; M.D., Johns Hopkins, 1983*
John A. Chabot. *B.S., Tufts, 1979; M.D., Dartmouth, 1983*
Peter L. Geller. *B.A., Harvard, 1971; M.D., Columbia, 1980*
Robert E. Michler. *B.A., Harvard, 1978; M.D., Dartmouth, 1981*
Freya R. Schnabel. *B.A., Barnard, 1978; M.D., New York University, 1982*
Paul Matthew Starker. *M.A., Harvard, 1976; M.D., Columbia, 1980*
Steven Stylianos. *B.A., Rutgers, 1978; M.D., New York University, 1983*
Mark R. Sultan. *B.A., Brandeis, 1978; M.D., Columbia, 1982*
Richard L. Whelan. *B.S., Fordham, 1978; M.D., Columbia, 1982*

Assistant Professor of Public Health

Anne C. Pannenborg (Health Policy & Management). *LL.B., Leyden (Netherlands), 1980; LL.M., 1983; Ph.D., Amsterdam (Netherlands), 1991*

Assistant Professors of Clinical Surgery

Lester Gottesman. *B.A., Rutgers, 1974; M.D., Pittsburgh, 1978*
Michael Kazim (also Ophthalmology). *B.A., Columbia, 1980; M.D., 1984*
Gary A. Tannenbaum. *A.B., Dartmouth, 1979; M.D., Columbia, 1983*

Assistant Clinical Professors

Jeffrey J. Arliss. *B.S., Vermont, 1978; B.A., 1979; M.D., Columbia, 1983*
Paul H. Gerst. *B.A., Columbia, 1948; M.D., 1952*
Mark E. Ginsburg. *B.A., Amherst, 1976; M.D., Tufts, 1980*
Lyall A. Gorenstein. *B.S., Toronto (Canada), 1979; M.D., 1983*
Leif O. Holgersen. *B.A., Taylor (Indiana), 1960; M.D., College of Medicine and Dentistry of New Jersey, 1965*
Patrick A. LaSala. *B.S., St. Peters, 1975; M.D., Columbia, 1980*

Associate Research Scientists

Eleni S. Athan. *B.A., Hunter, 1970; D.E.A., Paris, 1974; Ph.D., 1978*
Jorge A. Leon. *B.A., Universidad Del Valle (Colombia), 1975; M.S., Universidad de los Andes (Colombia), 1979*
Shanta M. Modak. *Ph.D., Haffkine Institute (Bombay), 1969*
Karen M. Newman. *B.S. State University of New York (Stony Brook), 1980; M.P.H., Mt. Sinai, 1985; Ph.D., 1987*
Osvaldo J. Yano. *M.D., Sao Paulo (Brazil), 1989*
Shrishailam S. Yemul. *B.S., Shivaji (Khapur, India), 1965; M.S., 1968; Ph.D., National Chemical Laboratory (Poona, India), 1974*

SPECIAL LECTURERS

Harold G. Barker, M.D.
Carl R. Feind, M.D.
Frank E. Gump, M.D.
Philip D. Wiedel, M.D.

INSTRUCTORS IN CLINICAL SURGERY

Salomon Rivera, M.D.
Mark David Sherman, M.D.
James S. Todd, M.D.

LECTURERS

A. Douglas Heymann, M.D.
Ronald N. Ollstein, M.D.
Allen D. Rosen, M.D.
Norman Sas, M.D.

At Mary Imogene Bassett Hospital

Clinical Professors

Michael S. Gold. *B.S., Miami, 1961; M.D., 1965*
John E. Olson. *B.A., Kansas, 1953; M.D., 1956*

Associate Professor of Clinical Surgery

Marek Rudnicki. *M.D., Silesian (Katowice, Poland), 1972; Ph.D., 1980*

Assistant Professors of Clinical Surgery

James Bordley, IV. *B.A, Yale, 1965; M.D., Columbia, 1970*
Patrick Allen Dietz. *B.A., Holy Cross, 1966; B.M.S., Dartmouth, 1968; M.D., Harvard, 1970*

INSTRUCTOR

David L. Rayfield, M.D.

INSTRUCTOR IN CLINICAL SURGERY

Robert M. Moglia, M.D.

At Harlem Hospital Center

Professors of Clinical Surgery

Barbara Barlow. *B.A., Vassar, 1960; M.A., Columbia, 1963; Ph.D., 1964; M.D., Albert Einstein, 1967*
Harold P. Freeman. *B.A., Catholic, 1954; M.D., Howard, 1958*

Associate Professor

Soji Oluwole. *B.S., Ibadan, 1967; M.B.,B.S., 1970*

Associate Professors of Clinical Surgery

Arthur Cooper (in the Institute of Human Nutrition). *B.A., Harvard, 1971; M.D., Pennsylvania, 1975*
Colin W. McCord. *B.A., Williams, 1949; M.D., Columbia, 1953*

Associate Clinical Professors

David M. Carberry. *Ph.D., Providence, 1947; M.D., Jefferson, 1951*
Ferdinand A. Ofodile. *B.S., Northwestern, 1964; M.D., 1968*
John W. Parker, Jr. *B.A., Fisk, 1942; M.D., Meharry, 1945*
Mohamad H. Parsa. *B.S., Tehren, 1957; M.D., 1963*

Assistant Professors of Clinical Surgery

Monqidh M. Al-Sawwaf. *M.D., Pahlavi, 1976*
David L. Friedman. *B.A., Rutgers, 1966; M.S., 1967; M.D., State University of New York (Downstate), 1971*

Ganepola A. Ganepola. *B.S., Kyoto, 1966; M.D., 1967*
Sitaram Pillarisetty. *M.D., Andhra (India), 1969*
Max Yergan. *B.A., Columbia, 1943; M.D., 1946*

Assistant Professor of Clinical Orthopedic Surgery

Shearwood J. McClelland. *B.A., Princeton, 1969; M.D., Columbia, 1974*

Assistant Clinical Professors

Rajunder P. Gandhi. *M.B.,B.S., Institute of Medicine (Mandalay), 1966*
Ruben Oropeza. *B.S., Mexico, 1948; M.D., 1955*
Carlton E. Patrick. *M.D., University of the Saar (Hamburg, Germany), 1957*

Assistant Clinical Professor of Neurological Surgery

Robert W. Shick. *B.A., Columbia, 1948; M.D., New York Medical College, 1953*

Assistant Clinical Professor of Otolaryngology

Ransford C. Newman. *M.B.,B.S., London, 1960*

SPECIAL LECTURER

Robert F. Morton, M.D.

ASSOCIATES IN CLINICAL SURGERY

Matthew D. Branche, M.D.
Urbano K. Guarin, M.D.
Malcolm Moley, M.D.
Pierre G. Van Bockstaele, M.D.

INSTRUCTORS IN CLINICAL SURGERY

Albert K. Adu, M.D.
Elizabeth A. Almeyda, M.D.
Gerard S. Audige, M.D.
Deodatta V. Bendre, M.D.
Canute C. Bernard, M.D.
Shefi A. Bezar, M.B.,B.S.
Harold A. Brooks, M.D.
Egel Francois, M.D.
Edoardo Giuliani, M.D.
Avtar S. Josen, M.D.
Barnett Miller, M.D.
Scott J. Zevon, M.D.

INSTRUCTOR IN CLINICAL NEUROLOGICAL SURGERY

George V. Di Giacinto, M.D.

INSTRUCTOR IN CLINICAL ORTHOPEDIC SURGERY

Caleb Medley, M.D.

INSTRUCTORS IN CLINICAL OTOLARYNGOLOGY

Ellsworth L. Frye, M.D.
Cecil D. Grimes, M.D.

At Morristown Memorial Hospital

Associate Professor of Clinical Surgery

Grant Van Sicles Parr. *A.B., Wesleyan, 1965; M.D., Cornell, 1969*

Associate Clinical Professors

John J. Castronuovo. *B.A., Columbia, 1970; M.D., New York Medical College, 1974*
Ames L. Filippone. *B.A., Cornell, 1950; M.D., 1953*
John R. McCormick. *B.S., Loyola, 1961; M.D., Boston, 1965*
Warren Widmann. *M.D., Yale, 1961*

Assistant Clinical Professors

John Alkhas. *M.D., Tehran, 1959*
Rolf H. Bessin. *M.D., George Washington, 1964*
John K. Edoga. *B.A., Columbia, 1967; M.D., 1971*
Edward R. McLean. *M.D., Columbia, 1973*
Ghassem Niknejad. *M.D., Tehran, 1961*
Eugene Watkins. *M.D., Harvard, 1943*

INSTRUCTORS IN CLINICAL SURGERY

Carey Dolgin, M.D.
Hughes Dougan, M.D.
R. Alan Henseler, M.D.

At Overlook Hospital

Clinical Professor

Richard W. Brenner. *B.A., Princeton, 1954; M.D., Columbia, 1958*

Associate Clinical Professors

David Befeler. *B.A., Columbia, 1955; M.D., 1959*
Bruce J. Brener. *B.A., Yale, 1962; M.D., Harvard, 1966*
Charles J. Wittmann, Jr. *B.A., Princeton, 1958; M.D., Pennsylvania, 1962*

Assistant Clinical Professors

John H. Cooper. *B.S., Lawrence, 1947; M.B.A., Chicago, 1949; M.D., 1954*
Douglas M. Costabile. *B.A., Muhlenberg, 1946; M.D., Geneva, 1951*
Jerrold S. Lozner. *B.A., Columbia, 1967; M.D., Louisville, 1971*
Daniel L. Moore. *M.D., Johns Hopkins, 1958*

ASSOCIATES IN CLINICAL SURGERY

Joseph V. Bocchino, M.D.
Walter Groff, M.D.
Robert E. Knapp, M.D.
Thomas Logio, M.D.
Charles A. Loguda, M.D.
Morton Perkoff, M.D.
Jerome Spivack, M.D.

At St. Luke's-Roosevelt Hospital Center

Ailsa Mellon Bruce Professor

David M. Tilson. *B.A., Rier, 1963; M.D., Yale, 1967*

Professors of Clinical Surgery

Richard G. Eaton. *B.S., Franklin & Marshall, 1951; M.D., Pennsylvania, 1955*
Walter Wichern. *B.S., Mount Union (Ohio), 1942; M.D., Harvard, 1945*

Senior Research Scientist

George A. Hashim (also Microbiology). *Ph.D., Columbia, 1967*

Associate Professor of Clinical Surgery

Thomas Dailey. *B.A., Princeton, 1957; M.D., Cornell, 1961*

Associate Clinical Professors

Fadi F. Attiyeh. *B.S., American University of Beirut, 1965; M.D., 1969*
Robert E. Miller. *B.A., New York University, 1953; M.D., State University of New York (Downstate), 1957*
Howard R. Nay. *B.A., Virginia Military Institute, 1952; M.D., Columbia, 1956*
James B. Rodgers. *B.A., Virginia, 1944; M.D., 1948*

Assistant Professor

Constantine E. Anagnostopoulos. *B.A., Georgetown, 1959; M.D., 1963; D.Sc., Athens, 1967*

Assistant Professor of Clinical Surgery

William G. Ramey. *B.A., Virginia, 1970; M.D., 1973*

Assistant Clinical Professors

Darrick E. Antell. *B.S., Hobart, 1973; D.D.S., Case Western Reserve, 1978; M.D., Ohio, 1982*
Arnold H. Belgraier. *B.A., Boston, 1967; M.D., Columbia, 1971*
Peter A. Bossart. *B.A., Muhlenberg, 1947; M.D., Cornell, 1951*
Peter B. Cinelli. *B.A., Holy Cross, 1960; M.D., Johns Hopkins, 1964*
Peter B. Fodor. *M.D., Wisconsin, 1966*
Michael Kalisman. *M.D., Hebrew (Hadassah), 1973*
Fred M. Kimmelstiel. *B.A., Queens (New York), 1974; M.D., New York Medical College, 1980*
Thom R. Loree. *B.A., Vassar, 1978; M.D., George Washington, 1982*
Stephan G. Lynn. *B.A., Swarthmore, 1969; M.D., Columbia, 1973*
James A. MacDonald. *B.A., Princeton, 1948; M.D., Columbia, 1950*
Richard A. Marks. *B.A., Harvard, 1965; M.D., 1968*
Leigh McBride. *M.A., Smith, 1972; B.S., Washington, 1975; M.D., 1979*
Haroutune A. Mekhjian. *B.S., American University of Beirut, 1961; M.D., 1965*
Donna Maria Mendes. *B.A., Hofstra, 1973; M.D., Columbia, 1977*
Eric D. Moore. *B.A., Harvard, 1969; M.D., Columbia, 1975*
Robert J. Mulcare. *B.A., Princeton, 1957; M.D., Columbia, 1961*
Edward W. Powers. *M.S., Fordham, 1964; M.D., State University of New York (Downstate), 1968*
Peter Stewart. *B.S., State University of New York (Brockport), 1979; M.D., Wisconsin, 1983*
Alexander J. Swistel. *B.A., Harvard, 1971; M.S., Rutgers, 1973; M.D., Brown, 1975*
James H. Terry, Jr. *B.S., Arizona, 1949; M.D., Columbia, 1953*
Chin Bor Yeoh. *B.A., Yale, 1953; M.D., Harvard, 1957*

SPECIAL LECTURER

James E. Norris, M.D.

LECTURER

Hiram Sedgwick Cody, III, M.D.

INSTRUCTORS IN CLINICAL SURGERY

Steven Z. Glickel, M.D.
B. Smith Hopkins, M.D.
Richard H. Karpinksi, M.D.
John J. Keyser, M.D.
F. Frederic Khoury, M.D.
Ronald M. Linder, M.D.
Dianne R. Lorieo, M.D
Paul I. Tomljanovich, M.D.
Frank A. Veteran, M.D.
Hiroshi Washio, M.D.

INSTRUCTOR IN CLINICAL ORTHOPEDIC SURGERY

George J. Zambetti, M.D.

Urology

John K. Lattimer Professor and Chairman

Carl A. Olsson. *B.A., Bowdoin, 1959; M.D., Boston, 1963*

At Presbyterian Hospital

Professor of Anatomy & Cell Biology

Anthony Bellve (in the Center for Reproductive Sciences). *B.Ag.Sc., Massey (New Zealand), 1964; M.Ag.Sc., 1967; Ph.D., North Carolina State, 1970*

Professor of Clinical Pathology

Paul B. Fisher. *B.A., Hunter, 1968; M.A., Lehman, 1971; Ph.D., Rutgers, 1974*

Professors of Clinical Urology

Terry W. Hensle. *B.S., Pennsylvania, 1964; M.D., Cornell, 1968*
Peter J. Puchner. *B.A., Carleton, 1958; M.D., Columbia, 1962*

Associate Professor of Clinical Urology

Mitchell Clark Benson. *B.S., Union, 1973; M.D., Columbia, 1977*

Associate Clinical Professors

Frank W. Longo. *B.S., Maryland, 1951; M.D., 1955*
Myron S. Roberts. *B.A., Syracuse, 1950; M.D., State University of New York (Upstate), 1954*

Assistant Professors

Kevin A. Burbige. *B.A., Siena, 1972; M.D., Wayne State, 1976*
Ralph Buttyan. *B.S., Pittsburgh, 1974; M.S., Chicago, 1977; Ph.D., 1980*
Harry Fisch. *B.A., State University of New York (Binghamton), 1979; M.D., Mt. Sinai, 1983*
Steven Kaplan. *B.S., Brooklyn, 1978; M.D., Mount Sinai, 1982*
Ihor Steven Sawczuk. *B.A., New York University, 1974; M.D., Medical College of Pennsylvania, 1979*
Ridwan Shabsigh. *M.D., Damascus, Syria, 1976*

Assistant Professors of Clinical Urology

John D. Birkhoff. *B.A., Harvard, 1964; M.D., Columbia, 1969*
Gerald Hoke. *B.A., New York University, 1979; M.D., Cornell, 1983*

Assistant Clinical Professors

Peter N. De Sanctis. *B.A., New York University, 1952; M.D., Boston, 1962*
John P. Grant. *B.A., Amherst, 1954; M.D., Columbia, 1962*
Michael H. Wechsler. *B.S., Trinity, 1961; M.D., St. Louis, 1965*

Associate Research Scientists

P. Gopal Reddy. *B.S., Osmanian (India), 1974; M.S., 1976; Ph.D., 1985*
Ruoqian Shen. *B.S., Fudan (Shanghai), 1967; M.S., Shanghai, 1981; Ph.D., State University of New York (Downstate), 1991*
Zhao-Zhong Su. *B.S., Shanghai (China), 1967; Ph.D., Liber de Bruxelles (Belgium), 1984*

SENIOR LECTURER

Abraham L. Kierszenbaum, Ph.D.

ASSOCIATES IN CLINICAL UROLOGY

Leonard J. Rudin, M.D.
Charles E. Umhey, Jr., M.D.
James A. Umhey, M.D.

INSTRUCTOR

Ben Z. Jacobs, M.D.

INSTRUCTORS IN CLINICAL UROLOGY

Luis M. Abreu, M.D.
Richard Kroll, M.D.

At Mary Imogene Bassett Hospital

Assistant Professor of Clinical Urology

Bruce R. MacDonald. *B.A., Washington & Lee, 1964; M.D., Medical College of Virginia, 1968*

At Harlem Hospital Center

ASSOCIATE IN CLINICAL UROLOGY

Urbano K. Guarin, M.D.

INSTRUCTOR IN CLINICAL UROLOGY

Kwabena Ansong, M.D.

At Overlook Hospital

Assistant Professor of Clinical Urology

Joseph Spencer Ritter. *M.D., Seton Hall, 1963*

ASSOCIATES IN CLINICAL UROLOGY

Kenneth L. Day, M.D.
Pascal A. Pironti, M.D.
Morey Wosnitzer, M.D.

At St. Luke's-Roosevelt Hospital Center

Professor of Clinical Urology

Nicholas A. Romas. *B.A., Colgate, 1958; M.D., Columbia, 1962*

Associate Clinical Professor

Joseph N. Ward. *M.B.,Ch.B., University College (Dublin), 1949*

Assistant Professors of Clinical Urology

David G. Kaufman. *B.S., City College of New York, 1980; M.D., State University of New York (Stony Brook), 1982*
Franklin Charles Lowe. *B.A., Princeton, 1975; M.P.H., M.D., Columbia, 1979*

Assistant Clinical Professor

Robert D. Wickham. *B.A., Drew, 1947; M.D., State University of New York (Albany), 1952*

Associate Research Scientist

Daniel Joseph Hryb. *Ph.D., City University of New York, 1972*

ASSOCIATES IN CLINICAL UROLOGY

William Reid Pitts, Jr., M.D.
Arumbi P. Subramaniam, M.D.

INSTRUCTOR

Norman H. Coleburn, M.D.

INSTRUCTORS IN CLINICAL UROLOGY

Walter Ivey Delph, M.D.
Jose V. Silva, M.D.
Alexander Sotiropoulos, M.D.
James W. Vastola, M.D.
Damir Velcek, M.D.

Official Regulations

Reservation of University Rights

This bulletin is intended for the guidance of persons applying for or considering application for admission to Columbia University and for the guidance of Columbia students and faculty. The bulletin sets forth in general the manner in which the University intends to proceed with respect to the matters set forth herein, but the University reserves the right to depart without notice from the terms of this bulletin. This bulletin is not intended to be and should not be regarded as a contract between the University and any student or other person.

University Regulations

According to University regulations, each person whose registration has been completed will be considered a student of the University during the term for which he or she is registered unless the student's connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at any time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which the student is first registered.

The privileges of the University are not available to any student until he or she has completed registration. Since, under the University statutes, payment of fees is part of registration, no student's registration is complete until the fees have been paid. A student who is not officially registered for a University course may not attend the course unless granted auditing privileges. No student may register after the stated period without obtaining the written consent of the appropriate dean or director.

Attendance

Students are held accountable for absences incurred owing to late enrollment.

Religious Holidays

It is the policy of the University to respect its members' religious beliefs. In compliance with New York State law, each student who is absent from school because of his or her religious beliefs will be given an equivalent opportunity to register for classes or make up any examination, study or work requirements that he or she may have missed because of such absence on any particular day or days. No student will be penalized for absence due to religious beliefs, and alternative means will be sought for satisfying academic requirements involved.

Officers of administration and of instruction responsible for scheduling of academic activities or essential services are expected to avoid conflict with religious holidays as much as possible. If a suitable arrangement cannot be worked out between the student and the instructor, they should consult the appropriate dean or director. If an additional appeal is needed, it may be taken to the Provost.

Academic Discipline

The continuance of each student on the rolls of the University, the receipt of academic credits, graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University.

Guidelines for Student Conduct

The Student-Faculty Advisory Committee of the College of Physicians and Surgeons has formulated the following Guidelines for Student Conduct. They provide a straightforward framework for ethical and responsible behavior.

General Guidelines

A medical student has the responsibility to conduct him/herself honorably at all times; during examinations, neither to give information to nor seek it from another student, or from any other unauthorized source; to carry out individual assignments as individuals, unless otherwise permitted and to avoid the incorporation of the ideas or work of others without proper attribution; and to extend to fellow students and members of the faculty, indeed to all others, the courtesy and respect he/she would enjoy receiving from them.

Specific Guidelines for the Clinical Years (based on "Guidelines for the Clinical Years," written by the Organization of Student Representatives of the Association of American Medical Colleges, unpublished).

A medical student shall respect all patients and their families regardless of their age, sex, race, national origin, religion, socio-economic status, state of health, personal habits, sexual orientation, or cleanliness; interact with patients, their families, and visitors in a courteous, considerate manner and avoid the use of derogatory colloquialisms; maintain confidentiality of information concerning patients and refrain from discussing cases except under appropriate circumstances; be truthful to the health care team in carrying out clinical responsibilities, never falsifying information or purposely misrepresenting a situation; be punctual, reliable, and conscientious in fulfilling clinical duties, while seeking the appropriate advice and supervision in doing so; accept the responsibility to question plans or directives for patient care when, after careful consideration, the student believes such plans not to be in the best interest of the patient; not participate in patient care if under the influence of any substance that impairs ability to function, or experiencing any physical or emotional condition which does so; take an active role in preventing an impaired student from being involved in patient care and at the same time recognize the obligation to assist such a colleague in seeking appropriate professional help; clearly identify his/her role as a medical student to each patient.

Rules of University Conduct

The Rules of University Conduct (Chapter XLI of the Statutes of the University) provide special disciplinary rules applicable to demonstrations, rallies, picketing, and the circulation of petitions. These rules are designed to protect the rights of free expression through peaceful demonstration while at the same time ensuring the proper functioning of the University and the protection of the rights of those who may be affected by such demonstrations.

The Rules of University Conduct are University wide and supersede all other rules of any school or division. Minor violations of the Rules of Conduct are referred to the normal disciplinary procedures of each school or division ("Dean's discipline"). A student who is charged with a serious violation of the Rules has the option of choosing Dean's discipline or a more formal hearing procedure provided in the Rules.

All University faculty, students, and staff are responsible for compliance with the Rules of University Conduct. Copies of the full text are available at the Office of the University Senate, 406 Low Memorial Library, at the Office of Student Information Services, 208 Philosophy.

Policy Statement on Discrimination and Harassment

The following statement was adopted by the University Senate on April 27, 1990.

As a great center of learning, Columbia University prides itself on being a community committed to free and open discourse, and to tolerance of differing views. We take pride, too, in preparing the leaders of our society and exemplifying the values we hope they will uphold. These com-

mitments are subverted by intolerance, bigotry, and harassment. Even in recent history, we must recognize, race, ethnicity, religion, gender, sexual orientation, disability, and other irrelevancies have all occasioned attacks by the ignorant, the foolish, the sick, the evil. Instead of enjoying our differences and the richness they bring to our shared lives, some have chosen to make those differences the targets of anger and hate. As a community, we are committed to the principle that individuals are to be treated as human beings rather than dehumanized by treatment as members of a category that represents only one aspect of their identity.

This University resolutely condemns conduct that makes such targets of our differences. The free exchange of ideas central to the University can take place only in an environment that is based on equal opportunity for admission to academic and other programs and to employment, and on freedom from behavior that stigmatizes or victimizes others. All decisions concerning an individual's qualifications, free of stigmatizing consideration of race, color, national or ethnic origin, religion, disability, gender, sexual orientation, marital status, age, citizenship status, or Vietnam Era or disabled veteran status. Nor will Columbia tolerate any behavior that harasses members of the community on the basis of any of these qualities. Such behavior will be regarded as a violation of the standards of conduct required of any person associated with the Univerity and will subject the person guilty of it to the full range of internal institutional discipline, including permanent separation. While mediation and consensual resolution are of course to be encouraged, we also recognize the right of all persons who believe themselves to have been the targets of such behavior to institute a formal grievance. Coercion to require them to overlook or retract their complaints fosters discrimination and harassment and is equally intolerable in our community.

It is not enough to be prepared to respond when ugliness appears. Members of a community such as ours must work preventively as well, to ensure that all our dealings with each other are marked by decency and characterized by civility. Columbia is committed to do what it can to engender mutual respect, understanding, and empathy. The University acknowledges a special responsibility to develop sensitivity to the concerns of those among us most vulnerable to discrimination and harassment.

Columbia devotes its resources to these commitments in many ways. Particulary noteworthy are the President's Committee for the Promotion of Mutual Understanding and Civility, charged with building a tolerant and vibrantly diverse community among us, and the Office of Equal Opportunity and Affirmative Action, responsible for coordinating the University's resources for responding to incidents of alleged discrimination or harassment. Ms. Rosalind Fink is the Director of the Office of Equal Opportunity and Affirmative Action, which is located in 409A Low Memorial Library. The telephone number of the office is 854-5511.

Statement of Nondiscriminatory Policies

The University is publishing the following statements in accordance with certain Federal, State, and local statutes and administrative regulations:

Consistent with the requirements of Title IX of the Education Amendments of 1972, as amended, and regulations thereunder, the University does not discriminate on the basis of sex in the conduct or operation of its education programs or activities (including employment therein and admission thereto). Inquiries concerning the application of Title IX may be referred to Ms. Rosalind S. Fink, Director of the University's Office of Equal Opportunity and Affirmative Action (409A Low Memorial Library, New York, NY 10027, telephone 212-854-5511), or to the Director, Office for Civil Rights (Region II), 26 Federal Plaza, New York, NY 10278.

Columbia University admits students of any race, color, national and ethnic origin, and age to all the rights, privileges, programs, and activities generally accorded or made available to students at the University. It does not discriminate against any person on the basis of race, color, national and ethnic origin, or age in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other University-administered programs.

Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination against any person on the basis of race, color, or national origin in programs or activities receiving Federal financial assistance. Title VII of the Civil Rights Act of 1964, as amended, prohibits employment discrimination against any person because of race, color, religion, sex, or national origin. Executive Order 11246, as amended, prohibits discrimination in employment because of race,

color, religion, sex, or national origin and requires affirmative action to ensure equality of opportunity in all aspects of employment. In addition, the New York Human Rights Law, Article 15, Executive Law §296 prohibits discrimination against any person in employment because of age, race, creed, color, national origin, disability, sex, marital status, and certain criminal offenses.

Consistent with the requirements of Section 504 of the Rehabilitation Act of 1973, as amended, and regulations thereunder, the University does not discriminate against any person on the basis of disability in admission or access to, or employment in, its programs and activities. Section 503 of the Rehabilitation Act of 1973 requires affirmative action to employ and advance in employment qualified workers with disabilities. The Americans with Disabilities Act of 1990 also prohibits employment discrimination against a qualified person with a disability, and requires the University to provide qualified applicants and employees with reasonable accommodations that do not impose undue hardship.

The Equal Pay Act of 1963 prohibits discrimination on the basis of sex in rates of pay. The Age Discrimination in Employment Act of 1967, as amended, prohibits discrimination in employment on the basis of age. The Age Discrimination Act of 1975 prohibits discrimination on the basis of age in programs and activities receiving Federal financial assistance.

Section 313 of the New York Education Law, as amended, prohibits educational institutions from discriminating against persons seeking admission as students to any institution, program, or course because of race, religion, creed, sex, color, marital status, age, or national origin. The New York City Human Rights Law, Title 8, §8–107, makes it an unlawful discriminatory practice for an employer to discriminate against any person because of their age, race, creed, color, national origin, gender, disability, marital status, sexual orientation, or alienage or citizenship status. It also prohibits educational institutions from discriminating against persons in any of the above categories in the provision of certain accommodations, advantages, facilities, or privileges.

On December 1, 1978, the Columbia University Senate passed a resolution announcing its general educational policy on discrimination which reaffirms the University's commitment to nondiscriminatory policies and practices in the categories of race, color, sex, religion, national and ethnic origin, age, and handicap, as well as its policy not to discriminate on the basis of sexual orientation. The Senate reaffirmed this policy on April 27, 1990, adding the categories of marital status, alienage and citizenship, and condemning harassment on the basis of any of the above-mentioned categories.

Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974, as amended, prohibits job discrimination and requires affirmative action to employ and advance in employment qualified special disabled veterans and veterans of the Vietnam era.

All employees, students, and applicants are protected from coercion, intimidation, interference, or retaliation for filing a complaint or assisting in an investigation under any of the foregoing policies and laws.

The University's Office of Equal Opportunity and Affirmative Action has been designated to coordinate the University's compliance activities under each of the programs referred to above. Any employee or student who believes that he or she has been denied equal opportunity should contact this Office, which will investigate complaints and offer advice and counsel on questions relating to equal opportunity and affirmative action, including information about agencies where complaints may be filed.

Discrimination Grievance Procedure

The University's Discrimination Grievance Procedure is available to enrolled students who feel that they have been the victims of sexual harassment or discrimination on the basis of race, religion, national or ethnic origin, sex, sexual orientation, marital status, age, handicap, or Vietnam era or qualified special or disabled veteran status. A copy of the Procedure is available in the Office of Equal Opportunity and Affirmative Action, 409A Low Library (854-5511).

A complaint under this Procedure is initiated through completion of a Discrimination Complaint Form, also available in the Equal Opportunity Office. Staff in that office will assist in completing the form and are also available for confidential counseling and informal investigation of discrimination claims.

Columbia University Ombuds Office

The Ombuds Officer is a neutral complaint-handler who seeks fair and equitable solutions to problems. The Ombuds Office serves the entire Columbia University community. In considering any given instance or concern, the rights of all parties that may be involved, along with the welfare of the University, are taken into account.

The Ombuds Office is a safe and confidential place to voice concerns. No formal permanent records of individual records are kept, except anonymous aggregate statistical data on the categories of complaints or inquiries. The Ombuds Officer will not report the names of callers or visitors or the specific content of problems reported unless permission is granted, or in the very rare instance in which there is a reasonable cause to believe that the safety of the caller or others may be endangered.

Except in emergencies, the Ombuds Officer does not take action or investigate an issue without the permission of the person who introduced the information to the Ombuds Office. The Ombuds Officer will listen, offer information about Columbia University policies and procedures, present a range of options for resolving a problem, or help find ways to convey information while maintaining the confidentiality of the source.

The Ombuds Officer may conduct an informal, impartial investigation or facilitate a resolution upon request. However, the Ombuds Officer has no power to establish, change, or set aside any University rules or policies. However, the Ombuds Officer is a resource for administrators and, when appropriate, may make recommendations or propose general changes in existing practices to correct problem areas or stimulate discussion of issues affecting the University community.

The Ombuds Office supplements, but does not replace, the existing resources for conflict resolution and fair practice available at Columbia University. The Ombuds Office is independent of existing administrative structures and reports directly to the President of the University.

For further information, contact Marsha Wagner, Ombuds Officer, or Lise Afoy-Campbell, Administrative Assistant, in 659 Schermerhorn Extension; (212) 854-1234.

Protection Against Sexual Harassment

Policy Statement on Sexual Harassment

Federal Law (Title VII of the Civil Rights Act of 1964) provides that it shall be an unlawful discriminatory practice for any employer, because of the sex of any person, to discharge without just cause, to refuse to hire, or otherwise to discriminate against that person with respect to any matter directly or indirectly related to employment. Harassment of any employees on the basis of sex violates this federal law.

To help clarify what is unlawful sexual harassment, the Federal Equal Employment Opportunity Commission (EEOC) has issued Guidelines on the subject. While the EEOC Guidelines apply only to faculty and other employees, the University prohibits sexual harassment of any member of the Columbia community, whether such harassment is aimed at students, faculty, or other employees, and violators will be subject to disciplinary action. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature will constitute sexual harassment when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment;
2. submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or,
3. such conduct has the purpose or effect of unreasonably interfering with an individual's academic or work performance or creating an intimidating, hostile, or offensive academic or working environment.

Any person who believes that he or she is being sexually harassed should seek a resolution of the problem through discussion with the person directly concerned. If this does not resolve the matter, or if there is a reluctance to deal directly with the person involved, the problem should then be brought to the attention of a member of the University Panel on Sexual Harassment. A list of current panelists appears on pp. 184–185. Advice may also be sought from the Office of Equal Employment Opportunity and Affirmative Action (409A Low Memorial Library; 854-5511). If these steps have not resolved the problem, the applicable University Grievance Procedure should be used, including the University Discrimination Grievance Procedure that is available if no other University grievance procedure is specifically applicable. No one at the University may retaliate in any way against a person who makes a claim of sexual harassment.

Charge of the University Panel on Sexual Harassment

The Columbia Panel on Sexual Harassment is composed of trusted, accessible, and sympathetic members of the University community who act as mediators. Their goal is the protection and counseling of any member of the University who is made to feel personally pressured or uncomfortable because of the behavior of another University member who is in a position of power. Members of the Panel provide a safe, impartial, nonadversarial setting in which the problem can be considered or solved, through confidential counseling and, when requested, mediation between the complainant and the alleged harasser. The Panel thus provides guidance and protection for the accused as well, identifying false or mistaken accusations, misunderstandings, or unconscious behavior. Panel members finally become a link through which the University can take account of, and take appropriate action against those on campus who are behaving illegally. The Panel on Sexual Harassment is thus a timely, protective, and compassionate arm of the University, one which not only sensitizes and educates the University community, but also demonstrates that University's commitment to fair treatment of all its members.

Sexual Harassment Complaint Procedures

A. Going to a Panelist

1. A complainant comes to a Panel member with a complaint, to report an incident, or to seek advice.
2. The Panel member obtains data through discussion with the complainant, but keeps no records.
3. The Panel member selects one of the counseling or mediation options suggested by his or her training.
4. If the case seems serious enough, the Panel member refers it to the Equal Opportunity/Affirmative Action Office.

B. Initiating a Formal Investigation

1. A formal investigation may be initiated in either of the following ways:
a. A complainant files a formal grievance under the applicable University grievance procedure. This step may be taken at any time, either with or without consulting a Panel member.
b. A Panel member, believing that further action in a particular case might be appropriate, with the permission of the complainant, consults with the director of the EOAA office and the General Counsel, or their designees. Consultations among the Panel member, General Counsel, and EOAA office may also occur in a case of multiple complaints.
2. All investigatory or formal actions taken will be conducted by the University and not by the Panel.

Panel Membership List

While Panelists are identified by location, school, or administrative area on this list, each of them is in fact available to any member of the Columbia community. Persons who feel uncomfortable speaking with "their" Panelists are encouraged to seek out a Panelist from elsewhere in the University.

Morningside

PROFESSIONAL SCHOOLS

Mary McLeod
Graduate School of Architecture, Planning, and Preservation
Associate Professor
306 Buell Hall
854-8262

Ann Bartel
Graduate School of Business
Professor
710 Uris
854-4419

Stephen H. Unger
School of Engineering and Applied Science
Department of Computer Science
Professor
Computer Science Dept.
939-7053

Kenneth Goldstein
Graduate School of Journalism
Professor
608B Journalism
854-4718, 854-4150

William Young
School of Law
Professor
8W8 Law
854-2645

Samuel Miller
School of Social Work
Associate Professor
711 McVickar
854-2735

ARTS AND SCIENCES

(Columbia College, Graduate School of Arts and Sciences, School of General Studies, School of International and Public Affairs, and School of the Arts)

Padma Desai
Department of Economics
Professor
1015 International Affairs
854-2266, 854-3681
(on leave, autumn 1993)

Kathy Eden
Department of English and Comparative Literature
Associate Professor
401A Philosophy
854-6432
(on leave, spring 1994)

Larry Engel
School of the Arts
Vice Chairman of the Film Division
503A Dodge
854-1681

Eric Foner
Department of History
DeWitt Clinton Professor of History
620 Fayerweather, Box 16
854-5253
(on leave, 1993–1994)

David Helfand
Department of Physics
Professor
1020 Pupin, Box 29
854-2150

Martha Howell
Director, Center for Women & Gender Studies
Professor of History
763 Schermerhorn
854-3277

CENTRAL ADMINISTRATION

Joan Turner
School of International and Public Affairs
Associate Dean
1415 International Affairs
854-2598

Donna Badrig
Columbia College
Associate Dean for Administration
417 Hamilton
854-1110

Mary Giannini
Center for Career Services
Executive Director
Box 5432, CMR
854-3376

University Libraries

Angela Giral
Avery Librarian
230 Avery
854-3068

Lamont-Doherty Earth Observatory

Constance Sancetta
Senior Research Scientist
Core Lab., Room 204
Palisades, N.Y. 10964
914-365-8412

Nevis Laboratories

Michael Shaevitz
Professor of Physics
914-591-8100, Ext. 247

Health Sciences

Jeanette Coy
Harlem Hospital Center
Administrator for Professional Services
4133 Mlk Pavilion
Obstetrics and Gynecology
506 Lenox Avenue
939-4341

Rae Janet Jacobs-Cohen
School of Nursing
Assistant Professor
122 Georgian Building
305-2809

Debra Kalmuss
School of Public Health
Associate Professor
Center for Population and Family Health
60 Haven Avenue, Level B-3
304-5234

Daniel W. Morrissey
School of Public Health
Assistant Professor of Clinical Behavioral Science
50 Haven Avenue,
Bard Hall, Box 227
305-3989

Marlene Moss-Klyvert
School of Dental and Oral Surgery
Associate Professor of Clinical Dentistry
Box 20 Physicians and Surgeons
305-3573

Marion Greenup
Health Sciences Administration
Departmental Administrator
Pediatrics
Babies Hospital South
1-104
305-7175

Katherine G. Nickerson
College of Physicians and Surgeons
Instructor in Clinical Medicine
Physicians and Surgeons 8-507
305-3645, 305-8039

Ethel Siris
College of Physicians and Surgeons
Professor of Clinical Medicine
Harkness Pavilion
305-2529

Debra Wolgemuth
College of Physicians and Surgeons
Associate Professor of Genetics
1613 Black Building
305-7900

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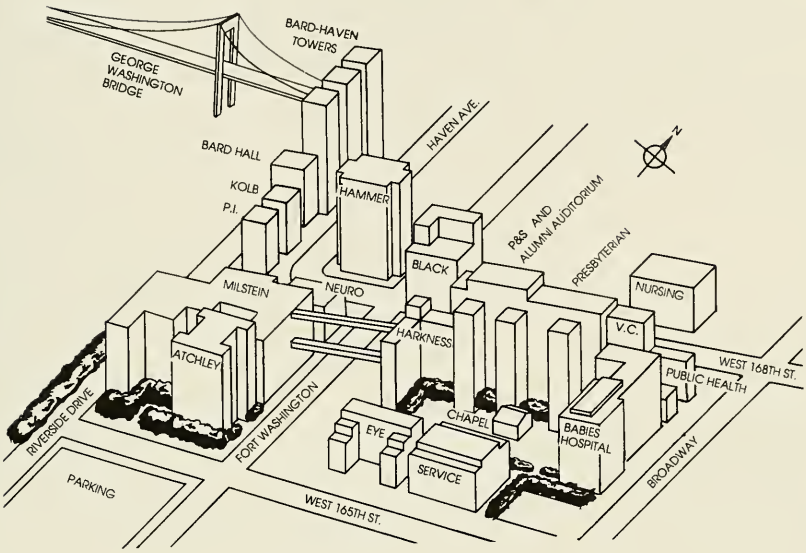
Columbia Universit,
HEALTH SCIENCES CAMPUS



Bard Hall and Bard-Haven Towers: Bard Hall is a 60-year-old dormitory for student housing, and the Towers are three University-owned apartment buildings for married students and third- and fourth-year medical students. The housing complex includes two other apartment-style buildings.

P.I. and Kolb: New York State Psychiatric Institute, including the Lawrence C. Kolb Research Building and Psychiatric Institute Annex

Hammer: Julius and Armand Hammer Health Sciences Center and Augustus C. Long Health Sciences Library

Neuro: The Neurological Institute of New York

Milstein: The Milstein Hospital Building

Atchley: The Dana W. Atchley Pavilion

Nursing: School of Nursing

Black: William Black Medical Research Building

P&S and Alumni Auditorium: The College of Physicians and Surgeons Building and the Alumni Auditorium

V.C.: Vanderbilt Clinic, which has more than 100 clinics, group practices, and the emergency service. It also houses the School of Dental and Oral Surgery.

Public Health: School of Public Health in the Washington Heights Health Center

Presbyterian: The Presbyterian Hospital Building

Harkness: Harkness Pavilion

Chapel: The Pauline A. Hartford Memorial Chapel

Babies Hospital: Babies Hospital Building North and South and Sloane Hospital for Women

Eye: The Edward S. Harkness Eye Institute and research laboratories

Service: Service Building

Map courtesy of the Office of External Relations, Columbia University Health Sciences